# CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, April 29, 1909.


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## CONSTRUCTION NEWS.

### Plans and Specifications on File.

*(* denotes that this work is advertised in Engineering News.)*

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 220 Broadway, New York.

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5- 3 Road, Hartford City, Ind. ..... 4- 1
5- 3 *Paving, etc., Kingston, Pa. ..... 4-22
5- 3 Regulating, etc., New York ..... 4-22
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5- 4 Road, Monticello, Ind. ..... 4-15
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## RAILWAYS.

AUGUSTA, GREGORY & SOUTHERN.—This company has been incorporated in Arkansas with $200,000 capital, to build from Augusta, Woodruff County, south about 14½ miles to the extension of the Missouri & North Arkansas R. R. The directors include: J. L. Comer, M. Gregory, R. H. Fitzhugh, T. E. Bonner, I. J. Story, T. E. Stanley, H. M. Wood, E. Roddy and A. H. Campbell.

CONCHO, SAN SABA & LLANO VALLEY.—Chartered in Texas with $200,000 capital to build a line from San Angelo, in Tom Green County, southeast to San Antonio, about 225 miles. Surveys now being made. The first section to be built will be from Miles southeast to Paintrock. Construction will commence soon. It is expected to have the line finished by the fall of 1910. D. E. Sims is Pres.; R. A. Love, First Vice-Pres. and Gen. Mgr., Kansas City, Mo.; S. Roach, Second Vice-Pres., and T. K. Wilson, Chn. Board Directors. Headquarters are at Miles, Tex.

GRAND TRUNK PACIFIC.—Edson J. Chambellan, Vice-Pres. and Gen. Mgr., announced in a recent interview at Winnipeg, Man., that company will spend $10,000,000 in construction in western Canada this year. Company will build a branch from Melville, Sask., to Prince Albert, Sask., a distance of 280 miles. Construction will be started this summer on the branches northwards and southwards from Melville, Sask. The former will give connection with the American boundary, while the latter will run to Hudson's Bay.

The first hundred miles east of Prince Rupert, the Pacific terminus, is now under contract and will be finished Sept. 1. On that date a contract will be let for 140 miles further east, which will take them into the mountains. Between Winnipeg and Prince Rupert there are only 260 miles not under contract. Trains will be running from Fort William to the Rocky Mountains this fall, a distance of 1,700 miles.

KINGFISHER, COLORADO & GULF.—As noted on April 8, this company has been chartered to build from Oklahoma City northwest into New Mexico. Company has signed a contract, backed by a bond of $20,000, to begin grading and building within 60 days. Surveys for this line were completed several months ago. The first section to be built will be between Oklahoma City and Kingfisher. The next to be built will be built from Kingfisher to Okeene. From Okeene the road will extend west to Guymon in Texas County, thence into the coal fields of New Mexico. J. M. McDonald, New York, N. Y., is Pres.

LONG ISLAND R. R.—At the present time, the Long Island Railroad Co. is engaged in completing its Bay Ridge improvement. In this work, there have already been eliminated a great many street crossings between East New York and Bay Ridge. This improvement, when completed, will give very desirable freight distributing facilities to Brooklyn and Long Island, according to Ralph Peters, Pres., in the New York "Times" on April 25. The company is also building a new line connecting Rockaway and the Montauk Divisions with the main line between Glendale and White Pot, so that trains from the Rockaway Division can proceed directly to the tunnels which are being built by the Pennsylvania Railroad. Further construction is proceeding on the Montauk freight cut-off, an overhead connection between the North Shore freight yard and the Montauk Division at Dutch Kills Creek, whereby all freight traffic to Jamaica may be handled from the Montauk Division and kept out of the way of passenger traffic from the tunnels to Jamaica. Work is actively progressing upon the building of additional tracks, the adjustment of curves and elevations between Jamaica and Long Island City. By the time the New York tunnels are ready for operation, this line will have been equipped with four tracks and will be operated as a high-speed electric line between the tunnels and Jamaica.

Other important work now in progress consists in the elimination of grade crossings at Huntington and Farmingdale to provide for a cross-country trolley line between Huntington and Amityville; the building of new stations at Huntington, Long Beach, Hicksville and Sag Harbor; improvement in the terminal facilities at Jamaica, and improvement of the terminal facilities at Sunnyside yard by way of preparation for the operation of the Pennsylvania tunnels. The future plans of the company provide for the double-tracking of the North Shore branches, the electrification of those branches, the extension of the electric third-rail system to Babylon, Oyster Bay and Huntington, further elimination of grade crossings on the lines in Queens Borough, the extension of the double track to Patchogue, the building of additional tracks between Jamaica and Long Island City and between Jamaica and East New York, and other minor general improvements.

*LOUISVILLE & NASHVILLE.—Bids are asked by the Board of Public Works, Louisville, Ky., until noon, May 24, for the construction of an underpass or undergrade crossing in Oak St., between Eighth and Tenth Sts., to be built by the City of Louisville and the Louisville & Nashville R. R. Co. The work consists of approximately 20,000 cu. yds. of excavation, 2,300 cu. yds. of plain and reinforced concrete, and 2,000 sq. yds. of granite block pavement, and other minor items. Plans and specifications may be seen at the office of the Board of Public Works and of the Engineering News, New York. Copies will be sent to responsible contractors on request.

MANITOULIN & NORTH SHORE (Algoma Central & Hudson Bay).—The Ontario Government has granted a subsidy of $5,000 per mile for 30 miles for a line between Little Current and Sudbury, Ont. Noted last week.

ONTARIO & WESTERN.—The Ontario Government has granted this company a subsidy of 1,000 acres per mile for a 7-mile line in the Thunder Bay District of western Ontario.

SAN DIEGO & ARIZONA.—Active construction will be begun next month on the San Diego & Arizona Railroad, of which John D. Spreckels is Pres., according to an announcement. The first work will be on the section of the road running from National City to Tijuana on the Mexican side of the boundary. The company will advertise for bids for grading that section of the road, May 1 being the time for opening the bids. The road from Tijuana will parallel the boundary line until it reaches the Jacumba Valley, when it will turn back into California, running through Carisso Canon and on through the Imperial country to the Colorado River.

*SHANNON ARIZONA.—Bids are asked by J. L. Pickles, Ch. Engr. of the Shannon Arizona R. R. Co., Clifton, Ariz., until noon, May 20, for the construction of ten miles of railroad grade from Clifton, Ariz., to Metcalf, Ariz. Approximate quantities are as follows: 100,000 cu. yds. excavation, solid rock; 7,000 cu. yds. excavation, loose rock; 40,000 cu. yds. excavation, earth; 900 lin. ft. rock tunnel; 2,000 cu. yds. dry rubble masonry; 900,000 ft. B.M. timber in bridges.

WHEELING & UNIONTOWN.—The W. & U. R. R. Co., recently chartered, is to meet for organization on May 3 at the office of Noyes & Ritz, 1110 and 1111 Schmuldach Bldg., in Wheeling, W. Va. S. M. Noyes, J. M. Ritz, A. B. Woodruff, Randolph Hix and L. C. Ebeling are the incorporators. Noted on April 1.

## ELECTRIC RAILWAYS.

SPRINGFIELD, MASS.—The Springfield St. Railway Co. plans to spend about $80,000 this year for improvements including new tracks, wire, electrical equipment, etc. H. C. Page is Gen. Mgr.

SOUTHOLD (L. I.), N. Y.—An application has been presented to the Town Board of Southold by John E. Root, George W. Reeves, Frederick E. Lewis, George F. Stackpole and J. Madison Wells for the consent of the board to enable the petitioners to construct and operate a street surface railroad from Riverhead, through Southold town, to Orient Point via Mattituck, Cutchogue, Peconic, Greenport and East Marion. Noted on April 15 under Riverhead, L. I., N. Y.

PITTSBURG, PA.—Surveys are under way for the Pittsburg & Suburban R. R., which is to be built from Pittsburg to Carnegie, Pa., and Steubenville, Ohio, about 40 miles. J. Toner Barr, 237 Fourth Ave., Pittsburg, is Engr.

SOUTHAMPTON, PA.—The Philadelphia Suburban Traction Co., of Philadelphia, will make application on April 27 for a charter for this company to build an electric street railway from Southampton to Hatboro. The applicants are: W. E. Watt, J. L. Crogan, H. C. Case, J. A. Bonnell and W. A. Merrick, of Newtown.

CALIFORNIA, PA.—The California & Centerville St. Ry. Co. will apply on May 10 for a charter. Company proposes to build a street railway from California to Centerville. Applicants for the charter are: M. H. Francis, W. J. Weaver, H. C. Drum, Harris Booker and Joseph McLain.

WHEELING, W. VA.—The Rapid Transit Tunnel & Ry. Co. is to meet on May 6 to organize. The incorporators are Albert M. Schenk, Edward W. Stifel, J. D. Marriman, J. R. Kommer and A. S. List. Noted on April 8.

FAIRMONT, W. VA.—HAMILTON & HUFFMAN have secured the contract for grading the extension of the Fairmont & Clarksburg Traction Co.'s line from East Park to the fair grounds.

AUGUSTA, GA.—The Augusta Ry. & Elec. Co. plans improvements on its local lines; also on the Augusta-Aiken division. James V. Jackson is Vice-Pres.; Jas. R. League is Gen. Mgr.

MIAMI, FLA.—The Miami Elec. Ry. has been sold. Company probably will be reorganized and the railway rebuilt and extended. H. C. Roome was the Receiver.

HATTIESBURG, MISS.—The Hattiesburg Traction Co., it is reported, has let a contract to the ELECTRICAL INSTALLATION CO., Monadnock Bldg., Chicago, to complete the street railway and erect a $150,000 power plant. It is to be in operation by Aug. 1.

GREENVILLE, TENN.—P. C. Ottinger, of Knoxville, is securing right-of-way for an electric railway between Greenville and Newport, Tenn. It is to be built by New York capitalists.

CINCINNATI, OHIO.—The Southwestern Ohio Tractions Co., of which John E. Bleekman is Pres., made application to the City Council on April 26 for a franchise for an underground, elevated, and surface line, without grade crossings, from Norwood into the heart of the city, and with a branch leading from a point near Vance St. and Columbia Ave. to Carroll St. With the completion of the plan under consideration, a company embracing several hundred miles of lines and extending half way across the state will be in operation. It is the intention to extend from Lebanon to Springfield, either by purchasing lines now in operation or by the construction of an independent line. An extension will also be built, either from Hillsboro or Blanchester to Columbus, and when the final plans are consummated the Southwest Ohio Traction Co. will form a direct and short line from Cincinnati to Dayton, Cincinnati to Springfield, and Cincinnati to Columbus; also branches reaching Blanchester, Hillsboro, Georgetown, Bethel, and New Richmond and intermediate points. Altogether it will embrace approximately 400 miles of railway. Construction will be begun this summer, according to Mr. Bleekman, providing the franchise is granted. He estimates that within a year the road will be in operation. George H. Worthington, of Cleveland, who is largely interested in the Interurban Co., has been elected Chairman of the Board. This company was recently incorporated with $10,000 nominal capital. Headquarters, Second National Bank Bldg., Cincinnati. Incorporators: George B. Goodhart, Charles C. Benedict, William J. McCauley, C. B. Matthews and Harry T. Klein. Chas. Hansel, 43 Exchange Place, New York, is Engr. Mr. Hansel was assisted in the city work by J. M. Stewart, of Cincinnati, and on the up-state work by Jenkin W. Jones, of Columbus.

DANVILLE, ILL.—The Danville, Kankakee & Crescent Traction Co. has been incorporated to build an electric railway from Danville to Crescent City and Kankakee. Capital stock, $10,000. Incorporators: E. E. Meyers, George H. Clark, Louis Schwer, F. J. Nassels, U. S. G. Humphries, Henry R. Voigt, Fred. G. Nightingale and J. P. Sternberg, of Crescent City.

SPRINGFIELD, ILL.—Construction will be commenced soon on the Springfield & Jacksonville Elec. Ry. It will be about 35 miles long, connecting Springfield, Jacksonville and Berlin. Surveys are completed and right-of-way is being secured. Capital stock, authorized, $100,000. Bonds, authorized, $800,000. O. J. Lucas, Latham, is Pres.; D. H. Sims, Vice-Pres. and Treas.; D. B. Sims, Secy., Mt. Pulaski; John Melick, Ch. Engr., Myer Bldg., Springfield.

GALVESTON, TEX.—We are officially advised that the Stone & Webster Engineering Corporation, Boston, Mass., has contracted for the design, construction and equipment of an interurban electric railway between the cities of Galveston and Houston, Tex. The distance is about 50 miles and the road will be designed for high speed operation. The engineering work includes the final surveys, determination of right-of-way, design of bridge structures, the working out of the most economical car schedules, and the selection of types of rolling stock best adapted to the conditions. The contract includes the design and construction of the power station, transmission lines and substations.

SEATTLE, WASH.—E. L. Blaine has applied to the County Commissioners for a franchise for constructing and operating an electric railway between Renton and Issaquch, distance of about 10 miles.

## LIGHT AND POWER PLANTS.

*(* denotes that this work is advertised in Engineering News.)*

NEW YORK, N. Y.—Bids were received on April 14 by Bird S. Coler, Pres. Boro. of Brooklyn, for furnishing all the labor and material required for constructing motor pit, shaft tunnel and drainage structures and appurtenances complete for the power plant for Gowanus Flushing tunnel, at the head of Gowanus Canal, Boro. of Brooklyn. We are officially advised that contract has been let to HENRY E. FOX, 60 East 125th St., New York, at $24,200. A complete list of bids was given last week.

AUBURN, N. Y.—Plans are being considered by the New York, Auburn & Lansing R. R. for the erection of a power plant on Fall Creek on the Ithaca end of its railway. H. A. Clarke, Auburn, is Gen. Mgr. and Ch. Engr.

WESTON, W. VA.—George I. Keener, who was granted a franchise recently to operate an electric railway between Weston and Bendrle, has applied to the City Council for a franchise in Weston. It is proposed to build a power station in Weston.

WASHINGTON, N. C.—Contract has been awarded to R. W. MARSHALL & CO., of the Traction Engineering Co., New York, F. B. Massey, Gen. Mgr., for construction of electric power plant for proposed railway. Rodman & Rodman, Washington, N. C., represent holding and construction company.

FITZGERALD, GA.—The Fitzgerald & Ocilla Electric Railway & Power Co. will build an electric plant on Lake Beatrice to furnish power for 12-mile railway and electricity for lighting. The company will erect repair shops near the power plant. C. A. Holtzendorf, Gen. Mgr., Fitzgerald; S. Tilden Holtzendorf, Pres., 61 Fifth Ave., New York.

FORT PAYNE, ALA.—E. C. Drew, of Monroe, La., contemplates constructing power plant on Wills Creek for generating electricity. Surveys are being made.

VINCENNES, IND.—The Lincoln Oil & Gas Co., recently incorporated, will ask for bids for laying a pipe line for natural gas, it is reported. George B. Watson is Pres.

SAUNDERS, MICH.—Plans and specifications are being prepared by the Menominee Range Power & Development Co., of Iron River, Mich., for constructing a dam and electric power plant at Saunders at a cost of about $20,000. I. W. Byers, of Iron River, is Attorney for the company.

GRAND RAPIDS, MICH.—The Grand Rapids-Muskegon Power Co. is contemplating the installation of a steam auxiliary plant and has taken out a permit. The plant will be built as an addition to the present powerhouse on the west side at River and Wealthy Aves., but will be large enough to contain equipment capable of generating from 25,000 to 30,000 HP. Thomas Hume is Pres.

FORT RILEY, KAN.—The contract for extension to the lighting system at Fort Riley has been awarded to R. L. SPARKS, Long Bldg., Kansas City, Mo., for $5,600. Capt. W. M. Whitman is Const. Q. M.

FORT YELLOWSTONE, WYO.—The contract for the installation of the power plant at this post has been awarded to the POLIER ENGINEERING CO., 121 South Eleventh St., Philadelphia, Pa., for $45,889. Lieut. G. C. Smith is Const. Q. M.

LITTLE ROCK, ARK.—The WESTINGHOUSE-CHURCH-KERR CO., 10 Bridge St., New York, has contract to construct power plant in connection with new union depot and yards, according to the "Manufacturers' Record." The building will be 45 × 70 ft., concrete and brick. The smokestack will be built of vitrified tile, filled in with concrete, and reinforced with twisted steel bars from bottom of foundation to top of stack. It will be 150 ft. high above foundation. Two 500-HP. water-tube boilers will be installed, which will furnish heat for station, steam for engines which will generate light for building, and compressed air for interlocking signals to be installed in yards later. The power plant will be connected with the union station by vitrified pipe duct, which will contain wires to furnish light. Pipes which will carry water and steam to station will be laid in concrete and brick tunnel. Estimated cost, $80,000. The plant is to be completed by Aug. 1. W. E. Strolbrand will be Engr.-in-Charge.

BATESVILLE, ARK.—The city will install a 250-HP. Corliss engine and 250-amp. dynamo in the electric light and water plant, to cost $6,000. G. B. Harpole is Mgr. and Supt.

CALVERT, TEX.—The Calvert Water, Ice & Electric Light Co. has engaged Louis Block, Consult. Engr., 45 East 42d St., New York, N. Y., to prepare plans for its proposed electric light plant. The equipment will include two water tube boilers, three generators, direct connected to engine, two 75-KW. and one 25-KW. The company will also install a 25-ton ice plant. Noted on April 15.

GREENVILLE, TEX.—We are officially advised that the J. W. MAXCY CO., of Houston, Tex., has been awarded a contract for engineering and constructing the Greenville electric light plant. Cost, $60,000. W. A. Frazer is City Clerk.

AMARILLO, OKLA.—The Amarillo Water, Light & Power Co. will install a 400-HP. gas producer and gas engine. G. B. Findley, Machesney Bldg., Pittsburg, Pa., is Engr.

DENVER, COLO.—The Denver Gas & Electric Co. has taken out a building permit for the erection of its reservoir in the block bounded by Harrison St and Thirteenth Ave. The building will be of steel and concrete and will cost $50,000. The design is by M. E. Malone, Superv. Archt. of the company. W. J. Barker, 405 17th St., Denver, is Gen. Mgr.

The Northern Colorado Power Co. has decided to make extensions to its distributing system in the Longmont-Greeley district for the purpose of furnishing electricity to farmers in that district for pumping. The cost of the work is estimated at $150,000. W. J. Barker, 405 17th St., Denver, is Pres., and George Best, Secy.

PORTALES, N. MEX.—We are officially advised that plans have been completed for construction of an electric light plant and water-works system in Portales, to cost about $75,000. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are Engrs.

FORT BRAGG, CAL.—The Fort Bragg Electric Light Co. has decided to enlarge its electric light plant and will install a 750-KW. generator and steam turbine during the summer. The company will erect another transmission line from Fort Bragg to Mendocino to improve the service. F. C. White, Fort Bragg, is Mgr.

WINNIPEG, MAN.—The Williamson Construction Co. has sub-let the contract for clearing, corduroying and ditching the right of way for the Winnipeg municipal power transmission line from the city to Point du Bois to J. D. HOUSTON and M. BERGER, of Winnipeg. The work will be proceeded with at once.

VANCOUVER, B. C.—Financial arrangements for the Stav Lake Power Co. have been completed and William McNeil, Secy., announces power will be delivered to the coast cities before the end of 1910.

## BRIDGES.

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EAST BOSTON (Boston post-office), MASS.—Bids will be received until April 20 by William Jackson, City Engr., Boston, for constructing the steel draw span of the Chelsea St. bridge, between East Boston and Chelsea.

SLINGERLANDS, N. Y.—The following bids were opened on April 14 by the Town Board of Bethlehem at Slingerlands for constructing a bridge across Normanskill Creek on new Scotland Plank Road: Armoured Concrete Construction Co., Albany, for armored construction, $11,377 without piles and $12,217 with piles; for a concrete arch, $13,750 without piles and $14,360 with piles; Canton Bridge Co., Albany, steel bridge, $11,984; Hennebique Construction Co., New York, concrete arch, $11,950; Owego Bridge Co., Owego, steel bridge, $10,695; Owego Concrete Bridge Co., Owego, arch 120 ft., $12,500, arch 125 ft., $13,200; Merrill-Ruckgeber Co., New York, steel bridge, $11,800, no piles, and $12,590 with piles; for concrete arch bridge, $9,785, no piles, and $10,600 with piles; M. Fitzgerald, Hoosick Falls, steel bridge, $12,043; Stevenson & Leonard, Albany, steel bridge, $13,475; The United Construction Co., Albany, steel bridge, $12,146 with piles and $10,783 without piles; Montour Steel Co., Montour Falls, N. Y., steel bridge, $9,695; Jamesville Construction Co., Worcester, Mass., concrete arch, $13,980, 1-span, and $11,700, 2-span.

NEW CASTLE, PA.—Bids are asked until noon, May 12, by the County Commissioners, J. A. McMillin, Chn., for the furnishing of all materials and the erection of a bridge over Neshannock Creek in this city. Bids for both a steel and a reinforced-concrete structure are to be filed, as it has not been decided which class of bridge will be built. Thomas A. Gilker, of New Castle, is Engr.

Bids are also asked same time for the construction of three smaller concrete bridges that will be built this summer in various parts of Lawrence County.

WILKES-BARRE, PA.—Bids will be received until May 7 by James M. Norris, County Controller, for constructing steel, stone arch and concrete bridges throughout the county, in all 27 bridges.

DOYLESTOWN, PA.—Bids will be received until May 10 by the County Commissioners for constructing four concrete bridges. Cornelius T. Haldeman is County Comr.

HOKENDAUQUA, PA.—The County Commissioners on April 20 opened bids for repairing the bridges at Hokendauqua and Lower Catasauqua. For the latter repairs, consisting of new steel beams and double wooden floor, G. H. Hardner was the lowest bidder at $6,775. The other bidders were: G. H. Clader, $7,475; Guerber Engineering Co., $7,370; Owego Bridge Co., $7,200; James K. Smith, $6,862.

Contract for laying a new wooden floor and relaying the old floor on the Hokendauqua bridge was awarded to GEORGE H. CLADER at $47 per M. ft. for furnishing and laying new lumber and $10 for old. J. M. Smith bid $50.20 for new and $16 for old, and G. H. Hardner bid $47.50 for new and $15 for old.

DOVER, DEL.—The Kent County Levy Court on April 13, it is stated, awarded contract for constructing a drawbridge over the Leipsic River to the CANTON BRIDGE CO., of Canton, Ohio, at $7,164.

JERUSALEM, MD.—Harford and Baltimore Counties are considering the construction of a bridge across Gunpowder River at Jerusalem.

GRAFTON, W. VA.—The Baltimore & Ohio R. R. Co., A. M. Kinsman, Ch. Engr., Charles and Baltimore Sts., Baltimore, Md., contemplates rebuilding bridge here.

CARTHAGE, N. C.—Moore County will issue $16,000 of bonds for bridge construction. N. A. McKeithem is Chn. County Comrs.

ASHEVILLE, N. C.—The Southern Ry. Co., W. H. Wells, Engineer of Construction, Washington, D. C., will construct a concrete viaduct over the French Broad River here and a steel bridge over Mill Creek near here in connection with trackage improvements.

YORKVILLE, S. C.—Bids are asked until May 6 by York and Cherokee Counties for constructing a steel bridge over Broad River above Smith's Ford. C. F. Gordon is Supervisor, Cherokee County, Gaffney, S. C.

CHARLESTON, S. C.—According to the "Manufacturers' Record" the Atlantic Coast Line, E. B. Pleasants, Ch. Engr., Wilmington, N. C., has received an order from the Secretary of War, Washington, to repair the bridge over Ashley River, in accordance with specifications prepared by Capt. E. M. Adams, Corps Engrs., U. S. A., in charge of river and harbor work in South Carolina. The work is to include the removal of dilapidated fenders, repairing of fenders in a substantial manner and providing clear width of draw openings of at least 76 ft.

JACKSONVILLE, FLA.—Bids are asked until 9.30 a. m., May 5, by T. J. Hyde, Chn. County Comrs., for the manufacture and erecting of a steel draw bridge over Pabla Creek on the Beach Road. Gail L. Barnard is County Engr.

TAMPA, FLA.—Bids are asked by Hillsborough County until May 3 for constructing a trestle over Anclote River.

MAGNOLIA, MISS.—Bi... asked until May 3 by W. C. Vaugh... County Supervisors, for the const... span across Bogue Chitto... of a steel ... Holmesville. Bids are also asked ... near John Boyd's and ... other bridge near S. A. Dickey's pla... Asyka and Chatawa road, the two ... wooden structures.

STEUBENVILLE, OHIO... are asked until 1 p. m., May 7, by ... Reynolds County Audr., for construct... in Warren Township.

TOLEDO, OHIO.—Bids wi... received until noon, July 1, by the ... of Public Service, Reynold Voit, Se... for a reinforced-concrete arch bridge, ... lift draw, with necessary foundations, ... piers, etc., over the Maumee River.

DAYTON, OHIO.—Bids are ... until 11 a. m., May 13, by the County ... missioners, F. E. Tunison, Clk., for la... material necessary to build a self-clo... bridge over the Miami and Erie Canal ... the paper mills at West Carrollton, Mi... Township, the bridge to be not less than ... long and must provide a 40-ft. waterway ... a 14-ft. towing path, and will have a ... roadway and two 6-ft. walks, flooring ... of plank, steel concrete or creodone blo...

CLEVELAND, OHIO.—Bids ... asked until 11 a. m., May 12, by the ... City Commissioners, William F. Black, ... for the construction of bridge work ... Nos. 2292 Cane Arch McCrackus Ro... Bedford-Independence Townships.

VERSAILLES, IND.—Bids are ... until noon, May 4, by Nicholas ... County Audr., for constructing a wagon ... over Ripley Creek, Franklin Townsh...

RICHMOND, IND.—Bids are ... by the Commissioners of Wayne Coun... until 11 a. m., May 10, for the construction of eleven bridges.

CHICAGO, ILL.—Bids will be ... until May 5 by the Board of Trustees ... Sanitary District of Chicago, I. J. Bryan, Clk., for furnishing material and construction ... section No. 7 of the North Shore Channel and for performing certain collateral bridge work.

SHEBOYGAN, WIS.—Bids will be received by the Board of Public Works until April 30 for constructing a bridge over the Sheboygan River at Pennsylvania Ave., including bascule span, with necessary foundation piers, etc.

FOND DU LAC, WIS.—Bids will be received by the Board of Public Works until May 1 for taking down present ... structures and erecting two new plate girder ... spans bridges over west branch of Fond du Lac River.

NEWTON, KAN.—Bids are asked until noon, May 3, by J. A. Hunter, County Clk., for constructing three pile bridges and an 80-ft. iron span with modern approaches.

HONDO, TEX.—Medina County has voted $40,000 of bridge and road bonds.

McALESTER, OKLA.—The Pittsburg County Commissioners have awarded contract to the KANSAS CITY BRIDGE CO., Kansas City, Mo., at $10,719, for construction of six steel bridges, and to JOHN T. GRIGSBY, Paris, Mo., at $8,883, for construction of seven steel bridges.

TACOMA, WASH.—The citizens on April 6 voted to issue $300,000 of bonds for constructing permanent bridges. F. L. Davis is City Engr.

MALDEN, WASH.—The County Commissioners have let contract for a new steel bridge over Pine Creek at the west end of the town to replace the one carried away in the February floods. It will have a span of 114 ft., with an approach on the south end of 30 ft. and a 16-ft. approach at the north end. The bridge will stand 20 ft. above low water or 4 ft. higher than the old span. The contract was let to JOHN F. ARCHER & CO., of Spokane at $3,397. It is to be finished Sept. 1.

SANTA BARBARA, CAL.—Bids will be received by the Board of Supervisors until 10 a. m., May 3, for furnishing all labor and materials necessary for construction of a bridge across San Ysidro Creek in Road District No. 2. C. A. Hunt is County Clk.

PORT ARTHUR, ONT.—STEWART & HEWITSON, of this city, have received the contract from the Canadian Pacific Ry. Co. for the construction of all concrete culverts and bridges to be built by the company between Port Arthur and White River during the next five years.

*WINNIPEG, MAN.—HANEY, QUINLAND & ROBERTSON, Toronto, Ont., have been awarded contract for the steel railroad and traffic bridge across the Red River here for the National Transcontinental R. R. Commission. Price, $495,000.

## BUILDINGS.

*(* denotes that this work is advertised in Engineering News.)*

PORTLAND, ME.—Bids for the contract for general construction of a city building for Portland were opened on April 20 by the City Hall Commission. The contract will be awarded later. NORCROSS BROS., 10 East Worcester St., Worcester, Mass., submitted the lowest bid, which was $479,600. John Peirce & Co., 90 West St., New York, was second, with a bid of $[illegible]. F. W. Cunningham & Sons, of Portland, bid $509,710; Mullin & Nelson, Bangor, bid $597,999. The contract includes excavating, foundation, walls, floors, roof and fireproofing.

NORTHFIELD, VT.—Bids are asked until noon, May 15, by James Wilson, Secy. of Agriculture, Washington, D. C., for erection of a [illegible]-story and cellar brick building for the Weather Bureau, U. S. Dept. of Agriculture, at Northfield, Vt.

BARRE, VT.—Bids were received as follows on April 26, at the office of James Knox Taylor, Superv. Arch. of the Treasury, Washington, D. C., for the construction of a post-office building at Barre, Vt.: Woodbury & Leighton Co., 166 Devonshire St., Boston, $50,873; Ambrose B. Stannard, New

York, $74,000; Horton & Heminway, Boston, Mass., $39,4... Wm. H. Fissell & Co., New York City, $... 800; Watertown Construction Co., Watert... N. Y., $70,633; William R. Compton R... & Bldg. Co., Elmira, N. Y., $82,327; ...urolithic Co., Buffalo, N. Y., $80,000; W... E. Jackson, Montpelier, Vt., $76,585. M... 1, 1910.

WILLIMA...TIC, CONN.—Bids were received as fo...ws on April 22, at the office of James Kno... Taylor, Superv. Arch., Treasury Dept., ...ashington, D. C., for the construction o... the post-office building at Willimantic, C...n.: Herbst & Co., New York, $77,947; W...bury & Leighton, Boston, $69,847; Wheel... Building and Lumber Co., Putnam, C...n., $68,000; John A. Carter Co., Philad...hia, $66,952; Bliss & Griffiths, New York, ...39,175; Durolithic Co., Buffalo, N. Y., $66,...; Darling & Slade, Fall River, Mass., $62,...0; M. P. Wells, Philadelphia, $58,381; ...R. Compton Realty & Building Co., Elmira, N. Y., $61,497; Horton & Heminway, Boston, $64,626; Lawrence J. Rice, New ...ork, $65,341; William H. Fissell & Co., New York, $66,500. May 1, 1910.

NEW YORK, N. Y.—Bids were received as follows on April 24 at the office of the Bureau of Yards and Docks, Navy Dept., Washington, for new roof on Building No. 41, at the Navy Yard at New York: Guarantee Construction Co., 140 Cedar St., New York, $27,150; James E. Leamy & Co., Learned Bldg., Syracuse, $25,400; Merrill-Ruckgaber Co., 50 Church St., New York, $28,700; Philip Carey Co., 114 Liberty St., New York, $4,000 (bidders' specifications); Commonwealth Roofing Co., 17 Battery Pl., New York, $27,427; Neptune B. Smyth, 1123 Broadway, New York, $27,430; Concourse Construction Co., 2065 Ryer Ave., New York, $30,700; Snare & Triest Co., 143 Liberty St., New York, $25,390.

Plans have been filed for a 6-story apartment house, containing 51 suites of rooms, to be built for the Central Building Improvement & Investment Co. from designs by George F. Pelham, Arch., 503 Fifth Ave., at a cost of $255,000, and a 6-story apartment house with ground floor stores and 34 suites of apartments, to be erected for the Thomas Smith Construction Co. at the southwest corner of St. Nicholas Ave. and 178th St., from designs by Neville & Bagge, Archs., 217 West 125th St., at a cost of $175,000.

Plans for a 6-story apartment house, containing 42 suites, to be built for the De Leon Realty Co. have been filed. The structure will be built from designs by Louis Korn, 253 Fifth Ave., and Maximilian Zipkes, 147 Fourth Ave., on St. Nicholas Ave., north of 159th St., at a cost of $125,000.

A 6-story apartment house, with 36 suites, is to be built from designs by George F. Pelham, 503 Fifth Ave., for the Fleischmann Realty Co., 170 Broadway, at the northwest corner of Amsterdam Ave. and 177th St., to cost $85,000.

An apartment house, six stories high, with 39 suites, for William J. Casey, from designs by Neville & Bagge, Archs., 217 West 125th St., at Wadsworth Ave. and 178th St., at a cost of $175,000.

NEW YORK, N. Y.—Bids are asked until 10.30 a. m., May 4, by Nicholas J. Hayes, Fire Comr., for furnishing all the labor and materials required for additions and alterations to quarters of Engine Company No. 56, situated at 120 West 83d St.; for additions and alteration to quarters of Hook and Ladder Company No. 14, situated at 120 East 125th St.; for additions and alterations to quarters of Hook and Ladder Company No. 4, situated at 788 Eighth Ave.

Plans have been accepted for the new armory of the 22d Regiment Engineers, N. G. N. Y., and ground will be broken at once for the building, which is to be situated at 168th and 169th Sts., and Fort Washington Ave. The cost of the site was $381,000 and the proposed cost of the building is $625,000. The building, which will be of dark red brick with limestone and terra cotta trimmings, will provide quarters and accommodations for twelve companies with their field, staff and line officers. The drill hall will occupy nearly the entire main floor and will be the largest in the Borough of Manhattan. It will be lighted by 14 windows, over 13 ft. wide, with semi-circular heads, and by a clear-story with continuous windows on four sides eight feet in height. The gallery, which will extend entirely around the drill hall, will be four seats deep on either side and will have nine tiers at the two ends. It will have a seating capacity of over 2,500. There will be a rifle and pistol range. It will be 100 yds. in length and will be provided with 15 targets. Walker & Morris, 24 East 23d St., are Archs.

NEW YORK, N. Y.—A 20-story office building is to be erected for the Fifth Avenue Investment Co., George G. Griest, Pres., at the northeast corner of Fifth Ave. and 31st St. It will have a frontage of 56.9 ft. on the avenue and 150 ft. in the street, and will be of Italian Renaissance style, with facades of brick, trimmed with limestone and terra cotta, and finished with a colonnade of engaged columns at the lower stories. It will be built from plans by Buchman & Fox, 9 East 59th St., Archs. The building is to cost $500,000.

A 6-story elevator apartment house, covering 17 city lots, with 20 stores and 600 rooms, containing accommodations for 103 families, will be erected. This structure, to be known as the "Hunt's Point," is to be erected by the Henry Morgenthau Co. Buchman & Fox are Archs., 9 East 59th St., JAMES P. MEEHAN is Associate Arch. and builder. It will be erected on the block front on the west side of Southern Boulevard, with frontages on 163d and Simpson Sts., in the Hunt's Point section of the Bronx. The building will cost $650,000. The building will be of limestone, and specially made brick, ornamented with balconies, which will be filled with flowering plants and shrubs. The entrances will be on Southern Boulevard and 163d St., and will include halls 30 ft. square, decorated in marble.

Plans have been filed for a 12-story commercial building to be erected at a cost of $500,000, from designs by Commerfeld & Steckler Archs., 19 Union Sq., for Brady, Adler & Koch, replacing the old-fashioned brownstone dwellings at 37 to 45 West 20th St., which have been occupied by the Home for the Aged of the Sisterhood of the Church of the Holy Communion. The new building is to be of brick, with terra cotta trimming. It will have a frontage of 106.9 ft. and a depth of 32 ft., with a small extension.

NEW YORK, N. Y.—Bids are asked until 11 a. m., May 10, by C. B. J. Snyder, Supt. School Bldgs., Park Ave. and 59th St., New York, for alterations, repairs, etc., at Public Schools 6, 18, 49, 53, 59, 70, 73, 74, 77, 82, 96, 116, 117, 158, 183, Borough of Manhattan; for replacing urinal tanks, etc., at Public School 62, on Hester, Essex and Norfolks Sts., Borough of Manhattan; for installing heating and ventilating apparatus in new Public School 162, on the northerly side of St. Nicholas Ave., between Willoughby Ave. and Suydam St., Borough of Brooklyn; for alterations, repairs, etc., to Bryant High School and Public Schools 1, 2, 4, 5, 6, 7, 8, 9, 15, 76 and 80, Borough of Queens; for furnishing and delivering direct to office of depository, materials for use of mechanics (Heating Division), Building Bureau.

BROOKLYN, N. Y.—The lowest bid submitted on April 26 to C. B. J. Snyder, Supt. School Bldgs., New York, for installing heating and ventilating apparatus in new Public School No. 163, Brooklyn, was that of E. Rutzler & Co., 127 White St., New York, at $26,152.

BUFFALO, N. Y.—The George Irish Paper Corporation will erect a 5-story and basement warehouse, 70 x 185 ft., of heavy mill construction on River St. and the New York Central R. R. A. B. Brown, 425 Jersey St., is preparing plans.

George P. McArthur, 61 Hodge Ave., will erect for the J. N. Adam Co., 389 Main St., a 6-story retail store building, 50 x 200 ft., extending through to Washington St., of brick, stone and structural steel construction, with three hydraulic passenger elevators. Esenwein & Johnson, 775 Ellicott Sq., are Archs.

The Central Presbyterian Church will erect a church of stone to cost $100,000 on a site at corner Main St. and Jewett Ave., Parkside. Architect is not yet selected.

The item in the issue of April 15 stating that general contract for erection of the 7-story $140,000 commercial and manufacturing building, 60 x 164 ft., at Washington and Mohawk Sts., for Sinclair Rooney & Co. had been let to the Joseph Metz & Sons Co., 192 Elm St., should have read general contract let to METZ BROS., 1295 Fillmore Ave.

*MIDDLETOWN, N. Y.—Bids are asked until 3 p. m., May 12, by the State Commission in Lunacy, Albany, N. Y., for staff building and physicians' residence, construction complete, including heating, plumbing and electric work, at Middletown State Homeopathic Hospital Middletown. T. E. McGarr is Secy. State Comn. in Lunacy. Franklin B. Ware is State Arch., Albany.

*ROCHESTER, N. Y.—Bids are asked by the State Commission in Lunacy, Albany, N. Y., until 3 p. m., May 12, for dispensary and chemical laboratory; mortuary and autopsy room; conduit steam line to shops, stable and soap factory; sun rooms, women's building; construction complete, including heating, plumbing and electric work, at the Rochester State Hospital, Rochester, N. Y. T. E. McGarr is Secy Comn.; Franklin B. Ware is State Arch., Albany.

SCHENECTADY, N. Y.—The lowest bid received on April 26 by the Board of Supervisors of Schenectady County for the construction of the new court-house here was that of John McDermott, Schenectady, at $296,980, for general construction, and $44,800 for heating and ventilating. List of bidders will be noted next week.

*FORT TOTTEN, N. Y.—Bids are asked until 2 p. m., May 27, by the Constructing Q. M., U. S. A., for the construction, plumbing, heating and elestric wiring with fixtures of one single coast artillery barrack and one band barrack.

JERSEY CITY, N. J.—Contract has been awarded by the Board of Education to JOHN CONRAD, JR., 861 Elizabeth Ave., Elizabeth, N. J., at $122,940, for labor and materials required for the alternative heating and ventilating work and the alternative entire work for the enlargement and improvement of School No. 15, Dwight St.

MILLVILLE, N. J.—At a special meeting of the Board of Education held on April 20, bids for the proposed 16-room school building were opened. The bidders made two bids: the first to include a 3-story auditorium, with a seating capacity of 600, and the second to be a 2-story structure, without auditorium. The bids were: W. S. Capern, Haddonfield, $52,158 and $46,163; Henry Hoffman, Millville, $55,200 and $47,830; F. Reeves & Son, Millville, $49,993 and $43,013; Wilbert Beaumont, Atlantic City, $44,200 and $37,800; Joseph Steelman, Bridgeton, $44,425 and $40,500; Thompson & Stiles, Atlantic City, $48,377 and $43,289.

SHARON, PA.—We are officially advised that WILLIAM B. SCAIFE & SONS CO., 221 Fifth Ave., Pittsburg, Pa., has been awarded the contract for the structural steel work in the building of the Driggs-Seabury ordnance Corporation, at Sharon, Pa.

McKEESPORT, PA.—Work has been started razing the building at the corner of Fifth Ave. and Locust St., formerly occupied by Joseph A. Connelly as a restaurant, to make room for a 4-story buff brick and stone building to be erected by the owner of the property, Jacob Weiskircher. HUGH CARROLL has been awarded the contract for tearing down the old structure and erecting the new one. It is stated that the contract price will be about $45,000.

PHILADELPHIA, PA.—James G. Doak & Co., 1420 Chestnut St., has been granted a permit to build a 6-story addition, costing $550,000, to the Union League's clubhouse. The extension will measure 100 x 136 ft., and will cover the ground extending from the rear wall of the present building to 15th St., and from Sansom to Moravian Sts. Horace Trumbauer is Arch., Land Title Bldg.

James McCurdy, of the firm of McCurdy Bros., whose department store, at Front and York Sts. was damaged lately to the extent of $100,000 by fire and water, has announced that the damaged portions of the building, which was principally on the fourth floor, where the flames broke out, would be rebuilt, as soon as the insurance companies have adjusted the losses. This will require several days, but the firm will resume as soon as possible.

BALTIMORE, MD.—Rudolph Forrester has made application to the Building Inspector for a permit to erect eight 3-story brick dwellings on the north side of Orem Park Pl., between Pennsylvania Ave. and Morris St., to cost about $50,000. Each of the houses will be built on a foundation of stone, laid in cement, and will be 15 x 65 ft. Steam heat, electric lights and other modern improvements will be installed. Plans for the houses were made by Jacob F. Gerwig, Arch., 11 East Lexington St., and the work of construction will commence in a few weeks.

The contract for constructing School No. 59, to be erected on the Reisterstown Road, has been awarded to DAVID PEOPLES, Betz Bldg., Philadelphia for $108,935. The designs for the building were made by Otto G. Simonson, Arch., American Bldg., Baltimore. The building will have 24 rooms.

NORFOLK, VA.—We are officially advised that on April 21 bids were received by Rossell Edward Mitchell and Wood, Donn & Deming, Archs., Dickson Bldg., Norfolk, for construction of a 5-story Y. M. C. A. building, 60 x 121 ft. It will be fireproof and constructed of steel, terra-cotta tile, brick and marble. E. Tatterson, Law Bldg., Norfolk, was the lowest bidder, at $136,200.

*FORT MONROE, VA.—Bids are asked until 10 a. m., May 27 by Capt. Ernest R. Tilton, Q. M., U. S. A., for wire door and window screens for 15 new buildings.

*FORT MORGAN, ALA.—Bids were received on April 20, by Capt. H. B. Chamberlin, Q. M., U. S. A., Fort Morgan, for the construction, plumbing, heating and electric wiring at Fort Morgan, of one barrack, one Field Officers' quarters, four single sets of Company Officers' quarters, one mess hall, one lavatory, one double set Firemen's quarters, one wagon shed, alteration and addition to of porches on Buildings 3-24-34 and 35, and for moving Administration building and two sets N. C. O. quarters. We are officially advised that the following are the bids received for the entire work: Doullut & Williams, $124,143; George Ittner, Atlanta, Ga., $138,393; E. Morgan, Newport News, Va., $126,726.

LORAIN, OHIO.—Bids are asked at the office of E. Bruell, Clerk of the Board of Education, 1730 Penfield Ave., Lorain, Ohio, until noon, May 10, for furnishing of all materials and doing all the work necessary for the construction of an 8-room school building on Groveland St., J. H. Prescott, Majestic.

CINCINNATI, OHIO.—Bids are asked until noon, May 17, by the Board of Education for constructing school building to be located on the lot known as the "Bruce Avenue Lot," bounded on the west by Kirby Road, on the south by Bruce Ave. and on the east by Innes Ave., in the City of Cincinnati, Ohio. C. W. Handman, 511 West Court St., is Business Mgr. Bd. of Education; Elzner & Anderson, Ingalls Bldg., Cincinnati, are Archs.

LIMA, OHIO.—The NATIONAL CONCRETE FIREPROOFING CO., Williamson Bldg., Cleveland, Ohio, has been awarded the contract for building the new concrete hospital for the criminal insane at Lima. The building will cost $410,000.

ST. BERNARD (Cincinnati post-office), OHIO.—Bids are asked until noon, May 11, by the Board of Education of St. Bernard Village School District No. 4, Millcreek Township, Hamilton County, Ohio, for improving and remodeling the Ross Ave. school building. Charles J. Lohmann is Clerk.

LAGRANGE, IND.—The Trustees of Mount Zion English Lutheran Church will ask for bids for the construction of a new and modern church edifice after May 1.

NOTRE DAME, IND.—Bids will be received soon for construction of a dormitory to be known as Walsh Hall. Estimated cost, $110,000. W. J. Brinkman, Metropolitan Block, Chicago, Ill., is Arch.

INDIANAPOLIS, IND.—We are officially advised that plans for a 9-story business block at the southeast corner of Washington St. and Capitol Ave., which will replace the old Masonic Temple building, have been prepared by Rubush & Hunter, Archs., American Central Life Bldg. The building will be constructed of concrete, 63 x 120 ft., and will cost $200,000. The contract has been let to the BEDFORD STONE & CONSTRUCTION CO., Traction Terminal Bldg., Indianapolis. The building will be occupied by D. Sommers & Co., furniture dealers, and will be erected by the Bernard Realty Co.

Henry Schroeder, Trustee, has ordered plans for the construction of a brick school building in District No. 5 in Norwood. Bids will be received soon.

The Anson-Hixon Sash & Door Co. has ordered plans for construction of a warehouse on South Pennsylvania St. The building will be 111 x 175 ft., brick, stone and concrete. Bids will be received as soon as plans are completed.

Council No. 437, Knights of Columbus, J. A. Kebler, Secy., will ask for bids soon for erection of a $50,000 club house on North Illinois St.

LAPORTE, IND.—The Trustees of local Y. M. C. A. are preparing to ask for bids for the erection and completion of a $75,000 building.

EAST LANSING, MICH.—Bids are asked until noon, May 22, by James Wilson, Secy. Dept. of Agriculture, Washington, D. C., for the erection of a 2-story and cellar brick building for the Weather Bureau, U. S. Dept. of Agriculture, at East Lansing, Mich.

MANISTEE, MICH.—Bids were received as follows on April 21 at the office of James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Manistee, Mich.: Majestic Construction Co., Milwaukee, Wis., $66,888; Charles W. Gindele Co., Chicago, $70,650; James de Vault & Son, Canton, Ohio, $75,500; Northern Construction Co., Milwaukee, Wis., $71,674; General Construction Co., Milwaukee, Wis., $83,671; Mazelton & Walin, Chicago, $81,700; F. M. Roode & Co., Tipton, Ind., $69,983; Hanson Bros., Chicago, $69,780; Charles Hoertz & Son, Grand Rapids, Mich., $68,432; Everby & Wallace, Plymouth, Ind., $69,842; R. J. B. Newcombe, Manistee, Mich., $77,988; Gindele Bros. Co., Chicago, $74,775. Time, May 1, 1910.

NORTH CHICAGO, ILL.—Bids were received as follows on April 26 at the office of the Bureau of Navigation, Navy Dept., Washington, for the construction of a commandant's house and six other houses for officers at the Naval Training Station, Great Lakes, North Chicago, Ill. Bids were asked as follows: (a) Commandant's house, (b) four officers' houses, (c) two houses, (d) commandant's and four houses, (e) commandant's and six houses, (f) commandant's and two houses: James Corst, Racine, Wis., (a) $30,000, (b) $52,000, (c) $26,000, (d) $82,000, (e) $108,000; George R. Keachie, Madison, Wis., (b) $65,572, (c) $32,786; M. Yeager & Co., Danville, Ill., (d) $91,714, (e) $122,539, (f) $59,655; W. J. Scown Bldg. Co., Chicago, (a) $38,126, (b) $69,376, (c) $36,688, (d) $106,000, (e) $140,000.

MILWAUKEE, WIS.—Leenhouts & Guthrie, Archs., Miller Block, have prepared preliminary sketches and plans for the proposed new Milwaukee Rescue Mission, to be erected on Sixth St., between Prairie and State Sts., at a cost of $75,000. U. V. Silloway is Supt. Rescue Mission. The building will have four stories and basement of reinforced-concrete construction, 60 x 120 ft.

The Statutory Committee of the Milwaukee Board of School Directors has approved of the plans by D. C. Otteson, Arch., Milwaukee, for a public school building to be known as 23d District School No. 2, on Scott St., between 24th and 25th Aves., to cost, together with site, $115,000. Cost of building, $100,000. Bids will be called for in about a month.

Bids are asked by the Board of Trustees, Public Museum, Milwaukee, until 3 p. m., April 30, for furnishing all material and doing all work for the mason, concrete and steel work, carpenter work, painting and glazing, sheet metal work, roofing and sewerage work of an addition to the Public Museum building on Eighth St., between Grand Ave. and Wells St., to cost approximately $250,000. Ferry & Clas, 419 Broadway, Milwaukee, are Archs.

FOND DU LAC, WIS.—The Board of Trustees of the Congregational Church Society, Sheboygan and Macy Sts., has awarded contract for a $50,000 church to A. G. WATSON, 1226 Benton St., Joliet, Ill. Turnbull & Jones, Elgin, Ill., are Archs.

MARSHALLTOWN, IOWA.—The contract for the construction of the foundation for the 4-story Masonic Temple here has been awarded to H. G. HOECK, city. Bids will be taken soon on the superstructure. A. F. Gauger, Bank of Minnesota Bldg., St. Paul, Minn., is Arch. Cost, $45,000.

ST. LOUIS, MO.—The Tower Grove Turnverein immediately will begin the construction of a 4-story club house at the southeast corner of Grand Ave. and Juniata St. The building will cost more than $80,000, and with its furnishings will cost nearly $100,000. Plans and specifications have been prepared by William Lucas, 816 Oliver St., and he will have supervision of construction. The building will be of brick, stone and terra cotta. It will have a frontage of 100 ft. on Grand Ave. by 103 ft. on Juniata St.

Dr. Louis Young has commissioned Baker & Knell, Archs., corner of Olive and Ninth Sts., to prepare plans and specifications for two apartment houses to be erected at Taylor and Laclede Aves. The estimated cost of construction of the two buildings is $75,000. One of the structures will be on the east side of Taylor Ave., about 100 ft. south of Laclede Ave., will be a 3-story brick and will contain six apartments of seven rooms each. The frontage on Taylor Ave. will be about 75 ft. The other house will be on the southeast corner of Taylor and Laclede Aves., and will be identical in construction and number of apartments with the other. Baker & Knell will supervise the construction of both structures.

Contract will be awarded at once, it is stated, for constructing the proposed St. Mark's parochial school, 93 x 163 ft., four stories high, and to cost $125,000. The plans call for a kitchen, sodality halls, a chapel and a theater with a stage and dressing-rooms. Rev. Peter J. O'Rourke, Baker & Knell, corner of Oliver and Ninth Sts., are Archs.

TEXARKANA, TEX.—Bids are asked until 3 p. m., May 31, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction complete (except elevator) of the U. S. court-house at Texarkana.

*SAN ANGELO, TEX.—Bids are asked until 3 p. m., May 29, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring, and standard clock system), of the U. S. post-office and court-house at San Angelo.

BREMERTON, WASH.—Bids were received as follows on April 24 at the office of the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of three buildings and connecting passages for the Naval Hospital at the Puget Sound Navy Yard: R. J. Rounds Co., 220 Globe Block, Seattle, Wash., $153,300; W. N. Concannon Co., 431 Monadnock Bldg., San Francisco, Cal., $143,971; Power Construction Co., 303 Northern Bank & Trust Bldg., Seattle, Wash., $166,000.

KLAMATH AGENCY, ORE.—Bids are asked by R. G. Valentine, Acting Comr. of

Indian Affairs, Dept. of the Interior, Washington, D. C., until 2 p. m., May 27, for furnishing materials and labor necessary to construct and complete buildings, with cisterns or wells, for three day schools on the Klamath Reservation, Ore. Horace C. Wilson is Supt.

PORTLAND, ORE.—Bids are asked until May 1 by the Portland Railway, Light & Power Co. to erect at once a 9-story office building, 100 × 100 ft., over the sub-station at the corner of 17th and Alder Sts. The general offices will be moved into the new structure upon its completion and the First and Alder Sts. headquarters building will be rented. Work will start at once upon the building, and it is expected to have it completed ready for occupancy by Sept. 1. It is estimated that the cost will be $250,000. The general contract has been arranged with the HURLEY-MASON CO., and contract for structural steel has been let to the MINNEAPOLIS STEEL & MACHINERY CO., Minneapolis, Minn. The present sub-station will be retained in the basement of the building. The first two floors will also be given over to the machinery that now occupies the sub-station, together with the storage battery and additional apparatus to be installed to feed the underground distributing system. The company will require three floors of the new building for its offices and the remaining four stories will be rented. The building will cover ground space 100 × 100 ft. The structure will be of reinforced concrete construction, Class A. C. L. Linde is Supt. of Bldg. Construction. A. H. Richmond, Portland, is Ch. Engr.

SAN FRANCISCO, CAL.—The Board of Public Works has awarded a contract to DYER BROS., of the Golden West Iron Works, for the steel work on the new Hall of Justice, at a cost of $113,675.

FORT MASON (San Francisco post-office), CAL.—Gen. James B. Aleshire, Q. M. Gen., Washington, has authorized Maj. George McK. Williamson to let contracts for barracks at the Presidio. The aggregate amount of the award is $97,318. There will be one double set of barracks for the infantry to accommodate 170 men, the contract for which is $51,300; one band barracks for 28 men, $14,198; three double non-commissioned officers' quarters, $15,250. All these were let to PRINGLE, DUNN & MOSCRIPT, 338 Pine St., San Francisco. Other contracts are: JOHN G. SUTTON, San Francisco, plumbing, $9,767; BURNHAM PLUMBING CO., San Francisco, heating, $5,380; JOHN G. SUTTON, electric wiring, $1,523. The work is to be done in eight months.

MONTREAL, QUE.—Bids will be received by Alphonse Gagnon, Secy. of the Dept. of Public Works and Labor, Quebec, until 4 p. m., May 10, for the construction of an annex to the Jacques Cartier Normal School.

PRINCE ALBERT, SASK.—Bids will be called for soon for the erection of a 110-cell penitentiary here. Nap. Tessier is Secy. Dept. of Public Works, Ottawa, Ont.

MOOSE JAW, SASK.—R. N. WILLOUGHBY, Brandon, Man., has secured the contract for the erection of a building for the Y. M. C. A. at Moose Jaw. The cost of the structure will be about $70,000.

## WATER SUPPLY—IRRIGATION.

*(* denotes that this work is advertised in Engineering News.)*

FORT McKINLEY (Portland post-office), ME.—Bids will be received until May 7 by Capt. F. J. Morrow, Constructing Q. M., U. S. A., Portland, for extending the water and sewer lines at Fort McKinley and Fort Williams, and for grading and road work at Fort Williams.

METHUEN, MASS.—The Water Board on April 16 awarded contract to CHARLES E. TRUMBALL & CO., Tremont Bldg., Boston, Mass., for laying water pipe for water extensions at the following prices: Cross St., 19 cts. per ft.; Forest St., 20 cts.; Howe St., 20 cts.; Hampstead St., 20 cts.

*WARWICK, N. Y.—Contracts have been awarded as follows, bids opened on April 16: To R. D. WOOD & CO., Philadelphia, Pa., for about two miles of water pipe; to the RENSSELAER MFG. CO., of Troy, for hydrants and valves; and to ABLETT & BOWES, of Cohoes, for trenching. Total cost, $8,500. Henry Pelton is Engr.

MACHIAS, N. Y.—We are officially informed that the Machias Water-Supply Co. has been incorporated with the following officers: George N. Cowan, Delevan, N. Y., Pres.; John Hewit, Secy. and Treas. The company supplies Machias with water for domestic and fire purposes. The water will be supplied from springs about three miles from the village. Inquiries as to pipe and hydrants are desired.

*NEW YORK, N. Y.—Bids are asked by the Board of Water Supply until 3 p. m., May 17, for Contract 39 for furnishing and installing two 12,500,000-gallon steam turbo-turbine pumps, two 225-HP. water-tube boilers and all accessories, at Jerome Ave. pumping station, Borough of the Bronx. J. Waldo Smith is Ch. Engr.

WOODBURY, N. J.—The lowest bid opened on April 6 for furnishing 16,000 ft. of 16-in. c.-i. pipe was submitted, it is stated, by the Camden Iron Works, of Camden, at $21.79 per ton.

The lowest bid for laying the pipe was that of the Stewart Contracting Co., of Easton, Pa., at 34 cts per ft.

ALTOONA, PA.—The Board of Water Commissioners has awarded contract for the construction of Lake Altoona, which will be built at Kittanning Point, near here, to SEANOR & CAROTHERS, of Greensburg, Pa., at $235,315. This concern was the lowest bidder, there having been 16 other contractors bidding on the work. Work is to be started at once as soon as Councils have ratified the action of the Board. The contract includes all grubbing and cleaning; 3,650 cu. yds. of excavation for core wall between 5 and 10 ft. deep; 3,200 cu. yds. between 10 and 15 ft.; 2,850 cu. yds. between 15 and 20 ft.; 2,200 cu. yds. between 20 and 25 ft.; 700 cu. yds. below 25 ft.; 200 cu. yds. of rock excavation; 380,000 cu. yds. of earth embankment; 21,000 cu. yds. of rubble concrete masonry; 1,200 sq. yds. of slope paving; 112 lin. ft. of 60-in. c.-i. pipe; 1,200 lbs. of 8-in. beams, 2,400 lbs. of lengthening valves; 460 lbs. of w.-i. stocks; 250 lbs. of bronze steps; 1,500 lbs. of steel bar reinforcement for concrete work; one w.-i. gate; 3,155 lin. ft. of 12-in. sewer pipe furnished and laid; 465 lin. ft. of 8-in. sewer pipe, furnished and laid; ten manholes; three inlets; one flood tank; 400 lin. ft. of drill holes, and 3,150 lin. ft. of concrete fence. C. W. Knight is City Engr. George S. Beale is Res. Engr. for the Board of Water Commissioners. Bids were opened on April 22.

PITTSBURG, PA.—We are officially advised that the SIMPLEX VALVE & METER CO., 112 North Broad St., Philadelphia, has secured the contract to furnish the city ten 6,000,000-gallon rate controllers and a 36-in. Simplex meter. N. S. Sprague is City Engr.

LAWRENCEVILLE, VA.—Bids are asked by the city until June 1 for the sale of water-works and sewerage system franchise.

NORFOLK, VA.—Two 5,000,000-gal. pumps, cleaning of a 24-in. main and the testing of the main to 125 lbs. pressure, with strengthening if necessary, are recommended by the Committee on Fire Prevention of the National Board of Fire Underwriters, George W. Hoyt, Chn., 135 William St., New York.

WAYNESVILLE, N. C.—The city has awarded contract to GUILD & CO., Chattanooga, Tenn., at $4,774 for laying a 5-mile gravity line of 8 and 10-in. c.-i. water pipe and construct intake for water-works. J. L. Ludlow, Winston-Salem, N. C., is Consulting Engr.

MARSHALL, N. C.—We are officially advised that the town on April 20 voted a bond issue of $20,000 for town improvements, the money to be used in completing the water-works, installing a sewerage system and improving the streets. Dudley Chipley is Secy. Bd. Internal Improvements.

AUGUSTA, GA.—The city has awarded contract to J. H. McKENZIE SONS, of Augusta for the erection of an auxiliary steam pumping station upon 10% commission basis. The style of building has been changed so as to provide for present needs only. Nisbet Wingfield is Comr. of Pub. Wks.

JESUP, GA.—The city has engaged H. S. Jaudon, Consulting Engr., Savannah, Ga., to prepare plans and estimates for the construction of water-works.

AUGUSTA, GA.—The Water Works Committee has awarded contract to HALLAHAN & COSTELLO, of Augusta, for laying water mains during 1909. Estimated cost, $10,000.

*AUGUSTA, GA.—Bids are asked by the Water-Works Committee until noon, May 10, for furnishing f. o. b. cars Augusta the following material, all of which shall be standard specifications: 105 tons 6-in. c.-i. pipe, approximately 33 lbs. to the foot; 33 tons 8-in., 47 lbs. to the foot; 96 tons 10-in., 64 lbs. to the foot; 25 tons 12-in., 82 lbs. to the foot; together with the necessary crosses and tees for laying the above pipe, and 7,000 ft. of 2-in. galvanized pipe.

SOUTH JACKSONVILLE, FLA.—The city has voted $50,000 of bonds for water-works and sewer system.

RIPLEY, TENN.—The Ripley Light, Water & Ice Co. has decided to improve its water plant.

TOLEDO, OHIO.—Contracts were awarded on April 11 by the city as follows: To the WICKES BOILER CO., Saginaw, Mich., for pipe needed in filtration work contract at about $7,557; to NORWOOD ENGINEERING CO., Florence, Mass., for special castings, $1,825, and the U. S. CAST IRON PIPE & FOUNDRY CO., for specials at $3,370.

*TOLEDO, OHIO.—Bids will be received at the office of the Board of Public Service until noon, May 22, for the construction, delivery and erection of two duplicate electric generators of 100 KW. capacity each. Also for two vertical, 3-cylinder gas engines direct connected to the above named generators, together with the necessary piping, tools, etc. (The gas engines are to operate on producer gas.) Also for switchboard consisting of three main panels and three sub-panels, together with all instruments, switches, electric cables, etc. The above named machinery and materials are to be erected in the low service pumping station on the grounds of the filtration plant of the city. Reynold Voit is Secy. Bd.

HOUGHTON, MICH.—The contract for constructing 3,000 ft. of water system on the Dakota Heights property in West Houghton was awarded on April 16 to J. J. BYERS.

STURGEON BAY, WIS.—L. P. NEBEL has secured the contract for laying a 1½-in. water pipe from the new light plant to the schoolhouse to supply the building with drinking water.

ELGIN, NEB.—The contract for constructing water-works, bids opened on April 13, has been awarded to the KATZ-CRAIG CONTRACTING CO., of Omaha, at $13,183. John W. Early is Consulting Engr., Columbus, Neb.

LENNOX, S. DAK.—Bids will be received until 8 p. m., May 3, by the City Council for constructing 2,000 ft. of 4-in. water mains, seven hydrants and connections. John L. Nelson is Engr., Mitchell; Simon Smith is City Audr.

BILLINGS, MONT.—The PIPER CONSTRUCTION CO., of Billings, has secured contract to construct a reinforced-concrete equalizing reservoir for the Billings Water Power Co., to have a capacity of about 2,000,000 gallons. Cost, about $15,000, to be completed by June 15.

VERNON, TEX.—Bids are asked by R. B. Sherrell, City Secy., until May 4, for the construction of water-works. Estimated cost, $15,000.

GALVESTON, TEX.—Bids will be received until noon, May 12, at the office of John D. Kelley, City Secy., for furnishing materials and constructing an 8-in. c.-i. water main across Galveston Ship Channel, requiring about 1,500 lin. ft. submerged and 2,500 lin. ft. shore pipe and 35,200 cu. yds. of dredging. A. T. Dickey is City Engr.

KERENS, TEX.—The city is considering the construction of a water-works system.

HUBBARD, TEX.—The city has awarded contract to G. T. BLACKFORD, Knoxville, Tenn., at $490,550 for the construction of the proposed water-works system and electric-light plant. The work will include the construction of a concrete reservoir with a capacity of 600,000 gallons, concrete power-house, water mains, etc.

CROCKETT, TEX.—We are officially advised that the J. W. MAXCY CO., of Houston, Tex., has been awarded contract for engineering and construction of a water-works system for the city at $35,000. M. Satterwaite is City Secy.

ELGIN, TEX.—We are officially advised that the city has awarded contract to the J. W. MAXCY CO. for engineering and construction of a water-works system at $30,000. J. C. Miller is Chn. W-Wks. Com.

HUGO, OKLA.—Bids will be received until May 4 by the City Council for furnishing material and constructing a water-works system. Hiram Phillips is Consulting Engr., 645 Frisco Bldg., St. Louis, Mo.

FOWLER, COLO.—DOYLE & SCHWARTZ, of Colorado Springs, have been awarded contract to install a system of municipal water-works here, at about $7,400.

GROVER, COLO.—A plat for another reservoir site was filed on April 7, to be known as the Cotton Creek reservoir, located in the Pawnee Butte district east of Grover. C. C. and J. L. Anderson are the promoters and expect to fill the basin from Cotton Creek. The drawing provides for 139,000,000 cu. ft. Estimated cost, $32,000.

SUNNYSIDE, WASH.—The BUCYRUS CO., South Milwaukee, Wis., has been awarded contract for furnishing a steam elevator dredge, continuous buckets, of 3½ cu. ft. capacity, by the Reclamation Service on authority of the Secretary of the Interior, for use in enlarging the main canal of the Sunnyside Irrigation project, Washington. Cost, $28,010.

SAN FRANCISCO, CAL.—Bids are asked until June 9 by the Board of Public Works for 1,200 hydrants needed for the auxiliary water system. Marsden Manson is City Engr.

OGDEN, UTAH.—We are officially advised that bids were received as follows on April 19 by A. F. Parker, City Engr., for the construction of a distributing reservoir: Wheelwright Construction Co., Ogden, $13,772; W. T. Moran, Ogden, $15,027; J. P. O'Neil Construction Co., Ogden, $15,220.

*TORONTO, ONT.—Plans and specifications are on file at the office of Engineering News, New York, for material and construction of the necessary works in connection with the proposed water filtration plant. Bids are asked until May 18. Joseph Oliver is Chn. Bd. Control.

ST. BONIFACE, MAN.—The City Council has awarded contract to the NATIONAL METER CO., to supply the city water meters at $13.26 each.

*LETHBRIDGE, ALTA.—Bids are asked by Smith, Kerry & Chace, Confederation Life Bldg., Toronto, Ont., until May 17, for a steam pumping equipment for the city, to deliver 2,000,000 gallons per 24 hrs.

SASKATOON, SASK.—Contract for laying water mains and sewer pipe, bids opened on April 13, has been awarded by the city to HARRY WELCH, of Saskatoon, at $4,200. J. H. Truesdale is Clk.

ESTEVAN, SASK.—Bids will be received until May 19 by L. A. Duncan, Secy.-Treas., for constructing a water-works system and a main sewer, comprising 7,300 ft. water mains, 2,400 ft. tile sewer; also steel water tower, gasoline engines and power pump. Willis Chipman is Ch. Engr., 103 Bay St., Toronto, Ont.

## SEWERAGE.

*(* denotes that this work is advertised in Engineering News.)*

FORT McKINLEY, (Portland post-office), Me.—See item under Water Supply-Irrigation.

BROOKLINE, MASS.—Bids were opened April 5 by the Board of Selectmen, Edward A. McEttrick, Secy., for sewers in Saw Mill Brock Valley and Park Vale, about 6,550 ft. of from 30 to 8-in. pipe sewers. Contracts have been awarded to M. H. LYNCH, 106 School St., Roxbury, and C. G. CRAIB, 249 Pleasant St., Winthrop.

BROOKLYN, N. Y.—Bids are asked by Bird S. Coler, Boro. Pres., until 11 a. m., May 5, for furnishing all the labor and material required for constructing sewer in Malbone St., from Nostrand Ave. to New York Ave.

NEW BRIGHTON (S. I.), N. Y.—We are officially advised that the lowest bidder for the construction of a temporary combined sewer in Richmond Turnpike, bids opened on April 20 by George Cromwell, Pres. Boro. of Richmond, was James D. Sullivan, of New Brighton, at $4,646.

*AUBURN, N. Y.—We are officially advised that bids were received by C. A. Koenig, Mayor, on April 20, for the construction of sewers and appurtenances: (a) Regular bid, (b) alternate bid: H. B. Hooker & Son, Rochester, N. Y., (a) $75,841, (b) $8,802; Charles Ippolito, Auburn, (a) $81,536, (b) $9,974; Thomas Sweeney Co., Pittsburg, Pa., (a) $87,624, (b) $11,216; William McCarthy & Co., Pittsburg, (a) $89,784, (b) $14,917; Haggerty Contracting Co., New York, (a) $122,674, (b) $15,703; T. H. Riddle, Philadelphia, Pa., (a) $95,911, (b) $11,787; Kelley & Long, Boston, Mass., (a) $118,964, (b) $14,814; Sherman & Beebe, Utica, N. Y., (a) $95,803, (b) $11,803; Cusano & Douer, Niagara Falls, N. Y., (a) $96,847, (b) $11,788; Goodale & Jenison, Schenectady, N. Y., (a) $85,488, (b) $10,717; Tyne & Willey, Binghamton, N. Y., (a) $119[illegible] Gaffey Construction Co., [illegible] (b) $14,736; (a) $93,454, (b) $11,818 [illegible] use, N. Y.; Rye, N. Y., (a) $109,524, [illegible] Peoples; ard Construction Co., Chi[illegible] 211; Standard, (b) $11,894. W. Thomas [illegible] $98,261. Engr. [illegible] is City

UTICA, N. Y.—The Board [illegible] ontract and Supply on April 13 awarded [illegible] CCO PERRETTA contract for co[illegible] storm water sewers on the south[illegible] outskirts of the city, at $13,902. Other[illegible] were: J. E. Martin, $16,219; Will[illegible] Shoeneranz, $14,315; A. N. Johnston, [illegible] Arthur O'Brien is City Engr.

BINGHAMTON, N. Y.—Bid[illegible] asked until May 5 by the Board o[illegible] ntract and Supply for the construction [illegible] College St. and sanitary and [illegible] sewer in sewers in a number of street[illegible] e water Ward. [illegible] Fourth

ELIZABETH, N. J.—Bids w[illegible] received by the City Council until May [illegible] as stated, for constructing a sewer in S[illegible] C. N. K. Thompson is Street Comr.

BRADLEY BEACH, N. J.—B[illegible] ll be received until May 3 by the [illegible] for the construction of a septic syst[illegible] sewage disposal.

*DANVILLE, PA.—Bids wil[illegible] received by the Board of Trustees of t[illegible] ate Hospital for the Insane until noon [illegible] y 13, for constructing a storm water sew[illegible] g ft. in diameter and about 1,000 ft. [illegible] Plans and specifications may be seen [illegible] the office of the Superintendent of the H[illegible] ital, and at the office of Albright & Mc[illegible] Consult. Engrs., 908 Land Title Bldg., Ph[illegible] delphia.

CORRY, PA.—Three bids were [illegible] eived by the Council on April 19 for the [illegible] struction of the Concord St. sewer as follo[illegible] Corrigan & Mahoney, $3,405; Joseph [illegible] Cormick & Bros., $4,514; C. B. McCray [illegible] Son and C. H. Heath, $4,249.

NORTH BRADDOCK, PA.—Bids [illegible] re asked by C. A. Stewart, Boro. Engr., until [illegible] 3 p. m., April 30, for the construction of a terra-cotta pipe sewer in Orchard Alley between 13th and Lydia Sts.

BALTIMORE, MD.—Contracts for sanitary sewers were awarded by the Board of Awards as follows, bids opened on April 7: Sanitary contract No. 38, including 31,600 ft. of terra cotta pipe sewer, 8 to 15-in. diameter, and 17,000 ft. 6-in. terra cotta house connections, to RYAN & REILLY, American Bldg., Baltimore, at $50,776; Sanitary contract No. 39, including 24,025 ft. of terra cotta pipe sewer, 8 to 20-in. diameter, and 13,500 ft. 6-in. terra cotta house connections, to JAMES FERRY & SONS, Crafton, Pa., at $42,783. Calvin W. Hendrick is Ch. Engr. Sewer Comn.

*BALTIMORE, MD.—Bids are asked by the Board of Awards until 11 a. m., May 12, for constructing storm water drains, contract No. 7. J. Sewell Thomas is City Register.

WASHINGTON, D. C.—Bids were received as follows on April 26 at the office of the Commissioners of the District of Columbia for the construction of sewers in the District. The bidders were (a) R. J. Beall Construction Co., (b) James A. Coyle, (c) E. G. Gummel, (d) Warren F. Brenizer Co. (e) Lyons Bros., (f) Sutler & Ready, all of Washington: Trunk sewer, in the valley north of R St., excavation, (a) 74 cts.; (b) 70 cts.; (c) 65 cts.; (d) 59 cts.; sewer brick masonry, (a) $15; (b) $16; (c) $15; (d) $13.50; 24-in. pipe, (a) $1.15; (b) $1.25; (c) $1.19; (d) $1.14; 21-in. pipe, (a) $1.05; (b) $1.15; (c) $1.03; (d) $1.00; 18-in. pipe, (a) 90 cts.; (b) $1; (c) 87 cts.; (d) 80 cts. Extension of Luzon Ave. sewer to Georgia Ave., excavation, (c) 70 cts.; (e) 85 cts.; (d) 65 cts.; (f) 79 cts.; (b) 80 cts.; sewer brick masonry, (c) $16, (e) $18, (d) $15, (f) $18, (b) $20; 18-in. pipe, (c) 93 cts.; (e) $1.00, (d) 91 cts.; (f) 90 cts.; (b) $1.20. Sewer in Fourth St. S. E., excavation, (e) 89 cts.; (c) 75 cts.; (a) $1.04; (g) 75 cts.; (d) 75 cts.; sewer brick masonry, (e) $17; (c) $14; (a) $14; (g) $14; (d) $13; vitrified brick masonry, (a) $7.75; (e) $8; (c) $7.50; (g) $6.80; (d) $7.71. Fall Branch sewer from River Road to Wisconsin Ave., excavation, (a) $1; (b) 74 cts.; (c) 70 cts.; (d) 70 cts.; (e) $1.09; sewer brick masonry, (a) $16; (b) $18; (c) $16; (d) $15; (e) $18; 18-in. pipe, (a) $1.10; (b) $1.10; (c) 93 cts.; (d) 91 cts.; (e) $1.14.

NORFOLK, VA.—The Local Board of the Seventh Ward and the Board of Control have awarded contract to GUILD & CO., Chattanooga, Tenn., at $37,500, for the construction of the sewerage system in Colonial Pl. Bids were opened on April 14.

MONTGOMERY, ALA.—Bids are asked until noon, May 3, by Robert Tait, City Treas., for laying a sanitary sewer in South Lawrence and Maury Sts.

KNOXVILLE, TENN.—Bids are asked until noon, May 3, by the Mayor and Board of Aldermen for the construction of a sanitary sewer in improvement district No. 54. Thompson St., Eleventh Ward. C. C. Nelson is Recdr.

*LOUISVILLE, KY.—The following are the bids opened on April 16 by the Commissioners of sewerage for constructing the Vernon Ave. sewer: C. T. McCRACKEN CO., Columbus, Ohio, $19,133 (awarded contract); E. A. Barker & Son, Louisville, $[illegible],217; McCarthy Bros., Cincinnati, Ohio, $21,647; Burke & Mongovan, Louisville, $2[illegible],331; L. R. Figg Co., Louisville, $23,278; Associated Engineering Co., Louisville, $38,5[illegible]; Henry Bickel Co., Louisville, $39,029. [illegible] B. F. Breed is Ch. Engr.

*LOUISVILLE, KY.—Bids are asked until noon, May 7, by the Commissioners of Sewerage, for the construction of the 16th St. sewer, Contract 37 of the comprehensive system of sewerage for the city.

Bids are asked until noon, May 21, by the Commissioners of Sewerage for Section A of the Northeastern trunk sewer and Section A of the Beargrass Drain Improvement, Contract 36 of the comprehensive system of sewerage for the city. J. B. F. Breed is Ch. Engr.

MOUNT GILEAD, OHIO.—Bids are asked until noon, May 6, by the Village Clerk, for constructing sewers and sewage disposal plant. Estimated cost, $8,000. W. B. Eells is Engr.

YOUNGSTOWN, OHIO.—JOSEPH HANNON has been awarded contract for constructing sections Nos. 1 and 3 of the Poland Ave. sewer at $9,092, and ANTHONY O'HORO for section No. 2, at $7,937.

NILES, OHIO.—Bids will be received until noon, May by the Board of Public Service for furnishing the necessary labor and material for building sanitary sewers in Maple Ave., Neil and Linden Ave., including all necessary manholes and house connections from the sewer to the curb line. J. E. Tregaskis is City Engr.

HAMILTON, OHIO.—Bids will be received by the Board of Public Service until noon, May 6, for furnishing material and labor for the construction of a storm water sewer in East Ave. from Ludlow St. to Grand Boulevard, and for the construction of sanitary sewer and house connections in North Eleventh St. from Dayton to Heaton Sts. Chr. Pabst is City Engr.

LOGANSPORT, IND.—Bids are asked until 10 a. m., May 4, by George W. Cann, County Audr., for the construction of a sanitary sewer leading from the Orphans' Home buildings to a connection with the city sewer in Columbia St., at its intersection with LaRose St.

SOUTH BEND, IND.—Plans are nearly complete for the construction of a trunk sewer in the West End. Estimated cost, about $80,000. A. J. Hammond is City Engr.

WAUKEGAN, ILL.—The Board of Local Improvements on April 19 awarded contract to N. D. HALLET, of Aurora, Ill., at $84,110, for the construction of the ravine sewer. Other bidders were: Robert Wilson, Racine, $89,442; Lennan Bros., Detroit, $93,201; Jas. J. Duffy, Chicago, $106,094; E. R. Harding, Racine, $86,473; James Cape & Son, Racine, $82,481; Nash, Dowdle Co., Chicago, $89,993; R. J. Hickey & Co., Milwaukee, $116,408.

LA CROSSE, WIS.—The Board of Public Works has awarded contract for installing 36-in. trunk sewer in Mississippi St. to FRED HILDEBRAND, Layton Park, Milwaukee, Wis. Estimated cost, $30,261.

*WEST ALLIS, WIS.—We are officially advised that bids were received as follows on April 20 by the Board of Public Works for the construction of sewers and septic tanks, contact filter beds or sewage purification plants, with all necessary connections, outlets, etc.: (a) sewers, (b) disposal plants: C. F. Foster Co., West Allis, (b) $24,600; J. H. McCARTHY, 84 La Salle St., Chicago, Ill., (a) $41,129, (b) $24,000 (awarded contract); F. G. Mortimer, Chicago, (b) $31,-000; R. J. Hickey, Milwaukee, (a) $44,377; George E. Zimmerman, Milwaukee, (a) $42,-657; F. H. Nakulski, Milwaukee, (a) $44,-980; Thomas Szukalski, Milwaukee, (a) $47,-957; Herman Hohensee, Milwaukee, (a) $43,525; Robert Nelson, Racine, (a) $44,135; David West Construction Co., Milwaukee, (a) $39,950; P. J. Ryan, St. Paul, Minn., (a) $48,473; Daniel B. Danielson, Milwaukee, (b) $23,969. W. E. Geilmyer is Chn. Bd.

ABILENE, KAN.—Contracts were let on April 16 by the city for the construction of a sewer on the west side completing the sewering of the entire city. JOHNSON & JOHNSON, of Kansas City, received the awards.

WAYNE, NEB.—W. M. LANA, of Harlan, Iowa, has been awarded contract by the city for sewers in district No. 1, at $10,915, and for outlet sewer, at $2,179. Bids were opened on April 15. Martin L. Ringer is City Clk.

BASIN, WYO.—Bids are asked by the town until 7.30 p. m., May 17, for the construction of a sewerage system. M. O. Barnes is Mayor.

ARLINGTON, TEX.—We are officially advised that the J. W. MAXCY CO., of Houston, has been awarded contract for engineering and construction of a sewer system for the city, at $25,000.

SAN FRANCISCO, CAL.—The Board of Public Works on April 14 awarded contract to the CONTRA COSTA CONSTRUCTION CO., of Oakland, for the construction of the Ocean View sewer, at $41,999.

Fred Loeffler submitted the lowest bid for the construction of the Parkside sewer, at $84,000. Marsden Manson is City Engr.

SANDWICH, ONT.—Bids are asked by E. R. North, Town Clk., until 7.30 p. m., May 4, for brick and vitrified pipe sewers. Owen McCay is Engr., Walkerville, Ont.

## STREETS AND ROADS.

*(* denotes that this work is advertised in Engineering News.)*

FORT McKINLEY (Portland post-office), ME.—See item under Water Supply—Irrigation.

FALL RIVER, MASS.—Contracts for furnishing 275,000 granite paving blocks for the Street Department, it is stated, have been awarded as follows: 50,000 to ELLIS & MIGNAULT at $60 per M; 50,000 to FLAVIEN COTE at $63.90 per M, and 175,000 to HENRY SAVOIE at $64 per M.

BOSTON, MASS.—Bids are asked by Guy C. Emerson, Supt. of Streets, until noon, April 29, for constructing a macadam roadway in Montfern Ave., between Washington and Faneuil Sts., Brighton.

*LAWRENCE, MASS.—Bids are asked by the city at the office of C. J. Corcoran, City Clk., until 3 p. m., May 5, for about 29,000 sq. yds. of street paving with granite blocks on a concrete base. A. D. Marble is City Engr.

FORT MANSFIELD (Watch Hill post-office), R. I.—Bids are asked until 10 a. m., May 10, by Capt. Charles T. Baker, Q. M., U. S. A., New London, Conn., for riprap, constructing concrete road, resurfacing macadam roads and macadamizing areaways and constructing concrete roads at Fort Mansfield.

SYRACUSE, N. Y.—The Department of Public Works has estimated the cost of paving a portion of (a) Grove St. and (b) Stolp St. as follows, with standstone or creosoted wood blocks: (a) $30,900, (b) $14,245, and $26,875 and $12,270, respectively, if brick is used between railroad tracks; with asphalt, brick, bituminous macadam or bitulithic, (a) $22,720, (b) $10,290, and $19,775 and $8,850, respectively, if brick is used between tracks. Henry C. Allen is City Engr.

BROOKLYN, N. Y.—Nelson P. Lewis, Ch. Engr. of Bd. of Estimate, has completed surveys and tentative plans for extending the Eastern Parkway extension from Highland Park in East New York to Forest Park in Queens.

The BARBER ASPHALT PAVING CO., 30 Church St., New York, has been awarded contract by Bird S. Coler, Boro. Pres., for repaving with asphalt portions of Fulton St. and Flatbush Ave., bids opened April 7, at the following prices: 21,284 sq. yds. asphalt pavement, outside railroad area, 5-yr. maintenance, 95½ cts.; 3,006 sq. yds. asphalt pavement within railroad area, no maintenance, 88½ cts.; 93 sq. yds. old stone pavement, relaid in approaches, etc., 40 cts.; 2,967 cu. yds. concrete, outside railroad area, $5.80; 410 cu. yds. concrete, within railroad area, $5.80; 3,846 lin. ft. new curb, set in concrete, $1; 1,854 lin. ft. old curb, reset in concrete, 60 cts.; two noiseless manhole heads and covers, $16; 20,886 sq. ft. cement sidewalks, 16 cts. Total, $50,996. Other bids were: Cranford Co., 190 Montague St., Brooklyn, $51,101; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., Brooklyn, $51,231; Uvalde Asphalt Paving Co., 1 Broadway, New York, $60,311; Warren Asphalt Paving Co., $53,118. List of bidders noted in April 15.

NEW YORK, N. Y.—Bids are asked until 3 p. m., May 13, by the Park Board, Fifth Ave. and 64th St., New York, for furnishing and delivering crushed trap rock and trap rock screenings in parkways, Borough of Brooklyn.

*RYE, N. Y.—Bids will be received by George L. Henderson, Village Clk., until 8 p. m., for laying curbs, gutters and drain pipe on Purchase St., Orchard St. and Locust Ave. The work consists of approximately the following amounts: 8,630 lin. ft. curbing with brick gutters; 250 lin. ft. 12-in., 1,400 lin. ft. 8-in. sewer pipe, 13 catch basins, 500 cu. yds. rock excavation. C. E. Nightingale is Village Engr.

FULTON, N. Y.—We are officially advised that bids were received as follows on April 19 by W. A. Harrison, City Clk., for about 32,000 sq. yds. of trap rock macadam pavement, 7,750 sq. yds. vitrified pavement and crosswalks, 18,600 lin. ft. cement curb and 4,800 lin. ft. storm sewer, 10 to 20 ins., etc. The work was in nine sections. The lowest bid for all the work was submitted by Simpson & Willis Co., Erie, Pa., at $80,062. Lowest single bids were also submitted by this company. O. C. Breed is City Engr.

*BERNARDSVILLE, N. J.—Bids for constructing a stone road in the village of Bernardsville, from the depot to Seney Drive, and from Basking Ridge to Coffee House, will be received by the Township Committee of Bernards Township, at Basking Ridge, N. J., until 11 a. m., May 8. Plans and specifications may be seen at the office of Antony Schumacher, Township Engr.

FREEHOLD, N. J.—J. L. BUTCHER & SON, of Farmingdale, it is stated, have secured the contract for constructing 3¾ miles of the Allentown and Imlay storm gravel roads, at $13,731. Bids were opened on April 14 by the Board of Chosen Freeholders. W. B. Conover is Dir.

McKEES ROCKS, PA.—Bids will be received at the office of the Borough Clerk until 8 p. m., May 10, for the following: Grading, paving and curbing Munson, Grove, Frank, Ella, Greydon Sts. and Ashton and Gillen alleys. Total approximate estimates: 5,000 cu. yds. grading, 17,000 sq. yds. paving, 10,000 lin. ft. curbing. George H. McGinness is Boro. Engr.

PHILADELPHIA, PA.—The State Legislature has passed the bill providing for the construction of a State highway from Pittsburg to Philadelphia.

CONNELLSVILLE, PA.—Bids will be received by the Street Com. until noon, May 1, for repaving Pittsburg St., from Main to Orchard alley, paving to be made of entirely new bricks, the old brick to be cleaned and piled on the sidewalk. Amount of excavation to be determined when old brick are taken up.

PARNASSUS, PA.—Bids are asked until 8 p. m., May 4, by F. R. Alter, Boro. Clk., for furnishing the curbing, excavation and setting curbing on Anderson and Church Sts. There will be about 2,000 lin. ft. on both streets. Stone curbing is specified.

BALTIMORE, MD.—Bids are asked by the Board of Awards until 11 a. m., May 5, for bituminous filler and filler and concrete gravel for use in paving on Pier 4, Pratt St.; also for grading, curbing, guttering and paving with improved paving Chestnut Hill Ave., from Greenmount Ave. to the Old York road. Eugene F. Rodgers is Secy. B. T. Fendall is City Engr.

WASHINGTON, D. C.—Bids were received as follows on April 24 by the Commissioners of the District of Columbia for grading Massachusetts Ave. between Wisconsin and Nebraska Aves.: Drake & Stratton Co., Philadelphia, 29 cts. per cu. yd.; George Hyman, Washington, 21¾ cts.; James J. Overn, Washington, 22.4 cts.; Fisher & Carozza, Baltimore, 23.5 cts.; James W. Bean, Washington, 22 cts.; E. Saxton, Washington, 24.4 cts.; E. G. Gummel, 24 cts.

PORTSMOUTH, VA.—Bids will be received until May 6 by the Street Committee, E. B. Hawkes, Chairman, at the office of the City Clerk, for furnishing f. o. b. cars or in cartons on wharf 140,000 sidewalk paving bricks. Bascom Sykes is City Engr.

HANOVER, VA.—Bids will be received until May 1 by the County Clerk, Hanover Board of Supervisors, for constructing six miles of gravel road.

RICHMOND, VA.—Bids will be received until May 4 by the State Highway Commissioner, Richmond, for constructing three miles of macadam road in Botetourt County and for five miles of macadam road in Rockbridge County. P. St. J. Wilson is State Highway Comr.

WINSTON-SALEM, N. C.—Bids are asked until 10 a. m., May 5, by the County Clerk for constructing a macadam road five miles long.

DUBLIN, GA.—The city has awarded contract to the GEORGIA HYDRAULIC STONE WORKS, of Dublin, at $6,310, for constructing 4,300 sq. yds. new cement sidewalk and rebuild 4,200 sq. yds. of old cement sidewalks. H. S. Jaudon, Box 582, Savannah, Ga., is Engr.

BESSEMER, ALA.—Bids are asked by the city until May 4 for constructing 3,910 and 11,927 yds. of street paving, bids to be received separate and besed on brick, woodblock, granitoid, or bitulithic. Phil Lacey is City Engr.

OPELOUSSA, LA.—Huston & Cunningham, Consult. Engrs., 725 Maison Blanche Bldg., New Orleans, contractors for constructing about 35,000 sq. ft. of cement sidewalks and 7,000 lin. ft. brick curbing, have sub-let contract to J. E. ALLEN, of Opelousas. Estimated cost $10,000; M. Halphen is Mayor.

ELIZABETHTON, TENN.—The city is considering a bond issue of $50,000 for street improvements and sewer construction.

CLINTON, KY.—Bids wil be received by the city until April 30 for constructing two miles of paved streets. D. Johnson is Chn.

PAULDING, OHIO.—Bids are asked until noon, May 14, by Floyd Atwill, County Audr., for grading, draining, culverting and macadamizing 42 miles of pike roads, divided into sections. Estimated cost, $139,000. C. C. Straw is County Engr.

BOWLING GREEN, OHIO.—Bids are asked until 1 p. m., May 17, by F. W. Toan, County Audr., for grading, draining and macadamizing the Fred Peinert road for a distance of 3½ miles and the Thomas Shanks road for a distance of 2¾ miles. J. F. Gallier is County Surv.

COLUMBUS, OHIO.—Bids are asked until noon, May 12, by John Scott, Clk. County Comrs., for labor and material necessary to macadamize according to specifications the National Road East, from the east line of the village of Bexley to the line between Franklin and Licking Counties in Marion and Truro Townships.

SIDNEY, OHIO.—Bids are asked until noon May 3, by the Board of Public Service, W. L. Heiser, Clk., for labor and materials for paving with brick a number of streets.

MOUNT GILEAD, OHIO.—Bids are asked by Floyd Atwill, County Auditor, until noon, May 21, for grading, draining, culverting and macadamizing the 50-mile pike, divided into ten sections.

FORT WAYNE, IND.—Bids are asked by the Commissioners of Allen County until May 5, for the repair of 16 roads by paving same with broken stone. G. W. Lindemuth, County Auditor.

VERSAILLES, IND.—Bids will be received by the Audr. until noon, May 5, for the construction of 25,610 ft. of macadamized road in Laughery Township. Estimated cost $11,790. Also for the construction of 10,696 ft. of macadamized road in Otter Creek Township. Estimated cost $6,815. Nicholas Volz is County Audr.

BLOOMFIELD, IND.—Bids are asked by Peter M. Cook, Audr., Green County, until 2 p. m., May 4, for the construction of gravel road No. 54 in Green Township.

TIPTON, IND.—J. F. Barlow, County Audr., is preparing to advertise for bids for the construction of a gravel road in Wildcat Township, petitioned for by H. F. Null and others.

BRAZIL, IND.—Bids will be received until 11.30 a. m., May 6, for the construction of 8,740 ft. of gravel road in Sugar Ridge Township, and also for the construction of 13,416 ft. of gravel road in Harrison Township. James L. Burns is County Audr.

DANVILLE, IND.—Bids are asked by Wm. H. Nichols, Audr. Hendricks County, until 10 a. m., May 3, for the construction of two miles and 1,584 ft. of gravel road in Center Township.

COVINGTON, IND.—Bids are asked by W. B. Gray, Audr. Fountain County, until noon, May 4, for the construction of a gravel road in Troy Township.

DETROIT, MICH.—The contract for the city's supply of creosote block, amounting to 100,000 sq. yds., was awarded to the KETOLE RIVER QUARRIES CO., on April 17, at $1.73 per sq. yd.

AURORA, ILL.—The contract for paving portions of River, Galena and Walnut Sts., bids opened April 13, has been awarded to the McCARTHY IMPROVEMENT CO., of Davenport, Iowa, at $17,986. M. J. Tarble is City Engr.

LA CROSSE, WIS.—THOMAS WOOLEY has been awarded contract for paving Mormon Coulee road, bids opened April 17, by the city. This work includes 6,643 sq. yds. brick paving, 3,633 lin ft. cement curb, and 300 sq. ft. concrete driveways. Other bids were: E. S. Mead Stone Co., $16,448; La Crosse Stone Co., $16,349.

The LA CROSSE STONE CO. of La Crosse has secured contract for 18,031 sq. yds. macadamizing, bids opened on April 15, at $18,-783.

*TOMAH, WIS.—We are officially advised that bids were received as follows on April 16 by the Commitee on Public Works for the construction of a brick pavement and appurtenances: Thomas E. Woolley, La Crosse, $37,058; Abell & Braley Co., Winona, $39,121; Sweeney Bros., Reedsburg, $40,646; J. Rassmussen & Sons Co., Oshkosh, $40,-984; Donn & Mead, Cleveland, Ohio, $41,842; Holman & Davisson, Rochester, Ind., $42,281; Forrestal & Feyen, St. Paul, Minn., $42,400; Hackworthy Const. Co., Appleton, $43,372; E. L. Bartlett, Watertown, $43,771; E. R. Harding & Co., Racine, $44,418; Wm. O'Donnell, Milwaukee, $57,278. Engineer's estimate $40,377. John W. Alvord and Charles B. Burdick are Engrs.

CRESCO, IOWA.—Bids will be received until May 10 by the City Clerk for about 9,000 sq. yds. brick pavement on concrete foundation; also 3,000 sq. ft. of cement concrete curb.

ST. PAUL, MINN.—Bids will be received until May 3 by the Board of County Commissioners for improving portions of Rice St., Centerville and Manomin roads. Edward G. Krahmer is Co. Audr.

LAWRENCE, KAN.—Bids will be received until 5 p. m., May 3, by F. D. Brooks, City Clk., for grading, curbing and paving Tennessee, Ohio and other streets, requiring about 25,726 sq. yds. brick pavement, 5,500 ft. limestone curb, etc.

TOPEKA, KAN.—The contract for 15,000 sq. ft. of cement sidewalks in Elmhurst was let on April 16 to E. E. CRAUCH, the walks to be laid on both sides of Mulvane St., and on Huntoon St., from College to Garfield Aves. Walks will be laid on the other streets as soon as this work is completed.

ASHTON, S. DAK.—Bids are asked until noon, May 15, by Henry Sparling, Chn. Township Supervisors, for grading ten miles of new road and regrading five miles of old road in Jefferson Township.

ST. LOUIS, MO.—Bids will be received until May 4 by the Board of Public Improvements, A. J. O'Reilly, Pres., for paving with asphalt, bitulithic, vitrified brick and granite block Rosalie, Bower and several other streets.

CANADIAN, TEX.—Hemphill County has voted $10,000 of bonds for road construction.

NEW BOSTON, TEX.—The J. W. MAXCY CO., of Houston, Tex., has been awarded contract by Bowie County for the construction of roads and bridges. Estimated cost, $250,-000. J. Hughes is County Judge.

SANTA BARBARA, CAL.—Bids are asked until 10 a. m., April 30, by C. A. Hunt, Clk. County Supervisors, for constructing about 6.16 miles of road.

STOCKTON, CAL.—The CLARK & HENERY CONSTRUCTION CO., of Stockton, have been awarded contract for paving Center St. with asphaltic concrete at 18½ cts. per sq. ft. Bids were opened on April 12. A. C. Russell is City Clk.

ST. CATHARINES, ONT.—The following bids have been received by the city for street paving: Warren Bituminous Co., Toronto, bitulithic, $79,130; sheet, asphalt, $74,237; R. Secord, Brantford, Westrumite, $64,805; T. Riley, St. Catharines, Johnsonburg brick, $76,465; Mack brick, $78,874 (recommended for award); D. W. Mitchell Construction Co., Niagara Falls, Ont., Conneaut block, $74,-468; Johnsonburg brick, $78,083; Mack brick, $82,672; asphalt block, $92,591; Westrumite, $70,755; Louis Gipp, Buffalo, Bessemer brick, $80,997; Elliott & Riley, St. Catharines, Westrumite, $71,431; Blight & Fielder, Chatham, asphalt block, $81,887 (recommended for award); Newman Bros., St. Catharines, Penn brick, $72,982; Johnsonburg brick, $77,501; Mack brick, $79,911; asphalt block, $85,427.

WINNIPEG, MAN.—Bids will be received by Magnus Peterson, Secy. Civic Board of Control, until noon, May 1, for the construction of various asphalt pavements here to cost approximately $350,000. Specifications may be obtained from H. N. Ruttan, City Engr.

*WINNIPEG, MAN.—Bids are asked by the Board of Control until 11 a. m., May 20, for grading, curbing and construction of asphalt pavements, approximately 49,672 sq. yds. Plans, specifications and forms of proposal governing bid may be obtained at the office of H. N. Ruttan, City Engr., 233 James St.

CALGARY, ALTA.—The BITULITHIC & CONTRACTING CO., LTD., of Winnipeg, Man., has been awarded contract for 4,500 sq. yds. of bitulithic pavement by the city.

## MANUFACTURING PLANTS.

*(* denotes that this work is advertised in Engineering News.)*

SOUTHBRIDGE, MASS.—The American Optical Co. will begin in about two weeks the erection of a concrete building, 500 ft. long, by 75 ft. wide, four stories high, costing $200,000. The factory, which will be built near the Lensdale Pond, between the present two factories, will be used entirely for lens work. The machinery in the Lensdale factory will be removed to the new one, which should be completed by the middle of November. S. F. McIntosh is Supt. of Building Work of the American Optical Co.

WOONSOCKET, R. I.—The J. W. BISHOP CO., 107-109 Foster St., Worcester, Mass., has the contract for erecting a combing mill, a machine shop and a storage building for the French Worsted Co., of Woonsocket, of which Governor A. J. Pothier, of Rhode Island, is Treas. The building will be of brick, mill construction, with artificial stone trimmings, and will cost about $100,000. The combing mill will be 150 × 60 ft., and two stories high. The machine shop will be a 1-story structure, 116 × 36 ft., and the storage house will be 180 × 66 ft. and one story high.

NEW YORK, N. Y.—Bids are asked until 11 a. m., May 13, by John J. Barry, Comr. Dept. of Correction, 148 East 20th St., for furnishing all the labor and materials required for repairs and alterations to laundry plant, etc., at City Prison, Manhattan.

We are officially advised that the TURNER CONSTRUCTION CO., 11 Broadway, New York, has been awarded contract for constructing reinforced-concrete skeleton frame work and floors for factory building, 75 × 57 ft., five stories and basement, for William Hughes, at Metropolitan Ave. near Wythe Ave., Brooklyn, N. Y. This building will have brick walls. Work will be started at once. Theobold Engelhardt is Arch., 905 Broadway, Brooklyn.

*ROCHESTER, N. Y.—See item under Buildings.

PHILADELPHIA, PA.—An addition to the carpet plant of the Ivins, Dietz & Metzger Co., 1220 Market St., is to be built at the northeast corner of Seventh and Huntingdon Sts., at a cost of $250,000.

WASHINGTON, D. C.—Bids are asked by James Wilson, Secy., Dept. of Agriculture, Washington, D. C., until 2 p. m., May 14, for furnishing and installing refrigerating apparatus and installing insulated rooms.

ASHEVILLE, N. C.—The item regarding the proposed plant of the National Casket Co. was erroneously given under Nashville, N. C., last week. The contract has been awarded to the CUMMINGS STRUCTURAL CONCRETE CO., 316 Fourth Ave., Pittsburg, Pa.

COLUMBUS, GA.—The Perkins Hosiery Mills, Columbus, Ga., will expend about $150,000 for additional facilities for the production of cotton yarns. The company has awarded contract to JOHN H. LOWE, of Atlanta, Ga., for the erection of a building, which will be 2-story, 210 × 84 ft. In this building will be placed from 5,000 to 8,000 spindles, with accompanying carding machinery, etc., for the production of white and colored yarns for the knitting mills trade. The daily output will be from 5,000 to 7,000 lbs. of yarns and the machinery will be driven by electricity. The additional plant is expected to be ready for operation next fall. The company's present plant has 5,000 spindles, 275 knitting machines, etc., employing 300 operatives and producing seamless hosiery of all weights and colors.

ATLANTA, GA.—The Virginia Bridge & Iron Works, of Roanoke, Va., will erect a branch plant in Atlanta at a cost of $50,000, and work has begun on the foundation of the building. The plant will manufacture steel structural work, especially for railroad and highway bridges.

MERIDIAN, MISS.—Plans have been completed for the branch plant at Meridian of the Alden Knitting Mills, New Orleans, La. The main building will be of brick, two stories, 52 × 123 ft., with dye and boiler house, 40 × 80 ft. It will be equipped with 100 knitting machines for producing seamless hosiery. Electricity will be used and 100 operatives employed. The plant will be known as the Priscilla Mill with a capitalization of $30,000.

URBANA, OHIO.—Bids are asked until May 1 by the Howard Paper Co., Maxwell Howard and Lucius Howard, both of Dayton, Pres. and Mgr., respectively, for erecting a 2-story paper mill here. The cost of the building and equipment is to be about $250,000. Frederick Mueller, Hamilton, Ohio, is Arch.

ALLIANCE, OHIO.—Contracts have been let by the Berger Mfg. Co. for the erection of its proposed galvanizing plant. The CANTON BRIDGE CO. has the contract for the structural iron work, and MELBOURNE BROS. for the brick and cement work. Two buildings will be erected. One of them will be 300 × 125 ft., and the other 180 × 100 ft. Each will be about 50 ft. high. They will be fireproof. Work has been started at once.

INDIANAPOLIS, IND.—Schnull & Co., 110 South Meridian St., is asking for bids for erection of a packing house on Belt R. R. and West St. Estimated cost, $75,000. McMeans & Tripp, State Life Bldg., are Engrs.

CHICAGO, ILL.—The Barrett Mfg. Co., 219 Lake St., is carrying forward its plans to erect a plant to cost $1,000,000 at Sacramento Ave. and the south branch of the Chicago River. Samuel H. Bingham, Pres., has deeded to the company 24 acres on the north side of the west fork of the south branch, near 28th St., and between Albany and Sacramento Aves. The ground was purchased for the company two months ago by Mr. Bingham, and the original purchase price is said to have been $150,000, subject to an incumbrance of $100,000. The Barrett Co. manufactures roofing and paving materials, and has two plants in Chicago.

CHIPPEWA FALLS, WIS.—The Chippewa Falls Woolen Mill Co. has awarded contract for buildings and additions to cost $14,000, to the WISCONSIN CONSTRUCTION CO., William Lester, Pres., Chippewa Falls, Wis. The mill will be 30 × 60 ft., two stories high, with 60-ft. brick chimney. One story will be added to boiler room, 30 × 28 ft. New equipment will be purchased later.

MILWAUKEE, WIS.—The Manufacturers' Home Co. has awarded contract for mason and concrete work on $150,000 light manufacturing building to be erected at Mason and Front Sts. and Milwaukee River, to A. MONSTED & CO., Pabst Bldg., Milwaukee. H. P. Schnetzky is Arch. The building will be 8-story, 137 × 156 ft., reinforced-concrete construction.

The Geuder, Paeschke & Frey Co., recently incorporated as successor to the Geuder & Paeschke Co., manufacturers of tin and enameled ware, capital stock $1,000,000, announces that it has acquired four acres adjoining its present plant in Menomonee Valley, Milwaukee, for the purpose of making extensions. It is proposed later to erect a 3-story, solid brick building, 200 × 600 ft., in Milwaukee, and a 6-story solid brick warehouse, 88 × 100 ft., on Ohio St., between Kingsbury and Orleans Sts., Chicago, Ill.

Kirchoff & Rose, Archs., Majestic Bldg., are asking for bids for the erection of a 2-story store and light manufacturing building to be erected at Grand Ave. and Sixth St. for Henry Uihlein, of Joseph Schlitz Brewing Co., Milwaukee. It will be L-shaped, 110 × 90 ft., and 68 × 150 ft. Foundation is to carry eight, ten to twelve stories. Cost, $100,000. It will be of reinforced-concrete construction.

Contracts for $30,000 vat house for United States Glue Co., at Carrollville, Milwaukee County, awarded as follows: Mason and concrete work, PAUL RIESEN & SONS, Milwaukee; iron work, MILWAUKEE BRIDGE CO.; carpenter work, FRANK LUENZMANN CONSTRUCTION CO., 1912 Prairie St., Milwaukee. Building will be 205 × 170 ft., of reinforced concrete and brick.

LA CROSSE, WIS.—We are officially advised that the La Crosse Plow Co. will erect a foundry building as an addition to its plant. A. Hirshheimer is Pres.; Harry J. Hirshheimer is Vice-Pres.

SALPULPA, OKLA.—The Wells-Sapulpa Packing Co., of Sapulpa, Okla., has let contracts for the erection of a packing plant in this city to cost $260,000. The plant will have a capacity of 400 cattle and 600 hogs a day and will be modernly equipped. It will be built with capital furnished by M. B. Wells, of Salem, Ill., and his associates. BERINFINGER & MOSS, contractors, of Kansas City, Mo., have secured the contract, which calls for the completion of the building within 90 days.

WINNIPEG, MAN.—The Manitoba Rolling Mills will spend $200,000 this year enlarging their works by erecting additional buildings.

The British-America Elevator Co., of this city, will build 18 grain elevators this year along the Regina-Brandon branch of the Canadian Northern R. R.

## MISCELLANEOUS CONTRACTS.

*(* denotes that this work is advertised in Engineering News.)*

U. S. RECLAMATION SERVICE.—Items regarding irrigation, canal projects, etc., will be found under Water Supply—Irrigation.

*RAILROAD.—Clifton, Ariz.—See Shannon Arizona Ry.

*UNDER GRADE CROSSINGS.—Louisville, Ky.—See under Railways—"Louisville & Nashville."

DITCH.—Onawa, Iowa.—Bids will be received until May 4 for constructing the Eisele Ditch, approximately 57,000 yds. C. E. Blanchard, County Audr.

*DREDGING.—Milwaukee, Wis.—Bids are asked until 3 p. m., May 18, by Maj. Charles S. Bromwell, Corps of Engrs., U. S. A., for dredging at Manitowoc Harbor, Wis.

*DREDGING.—Baltimore, Md.—Bids are asked until 1 p. m., June 1, by Maj. W. E. Craighill, Corps Engrs., U. S. A., Room 309 Custom House, Baltimore, for dredging in Patapsco River, Md.

TELEPHONE SYSTEM.—Lumsden, Sask.—Bids will be received by Arthur Anslow, Secy., until May 8, for the construction of the proposed telephone system for the Wascana Rural Telephone Co.

*DREDGING.—Baltimore, Md.—Bids are asked by Maj. W. E. Craighill, Corps Engrs., U. S. A., until 1 p. m., May 24, for dredging in Southwest Baltimore Harbor and Curtis Bay Channel, Md.

CEMENT.—Sacramento, Cal.—Bids were received on April 10 by N. Ellery, State Engr., for furnishing 60,000 to 100,000 bbls. of Portland cement. Bids were rejected. Cement may be purchased in open market.

DAM.—Denison, Tex.—City Council will receive bids until 8 p. m., May 10, for constructing an earth dam; total embankment, 145,000 cu. yds. Hiram Phillips, Engr., Frisco Bldg., St. Louis, Mo. J. D. Yocum is City Secy.

*DAMS, ETC.—Rock Island, Ill.—Bids are asked until 2 p. m., May 27, by Maj. C. S. Riche, Corps Engrs., U. S. A., Rock Island, for construction and repair of dams and shore protections between Rock Island, Ill., and Burlington, Iowa, and between Burlington, Iowa and Hannibal, Mo.

DITCH.—Sycamore, Ill.—Bids are asked by the Drainage Commissioners of Malta, Milan, Afton and DeKalb Special Drainage District, Ill., until 1 p. m., May 6, for construction of open ditch (117,260 cu. yds. earth excavation), and for furnishing and hauling the materials. S. M. Henderson, Clk.

GRAND STAND.—St. Paul, Minn.—The Minnesota State Agricultural Society, C. N. Cosgrove, Secy., will receive bids until May 3, for the general construction of a reinforced concrete, steel, fireproof grand-stand to be built at the State Fair grounds here. Reed & Stem, Endicott Bldg., St. Paul, are Archs. Estimated cost, $200,000.

*DIPPER DREDGE.—Newark, N. J.—Bids are asked until 3.15 p. m., May 6, by the Board of Street and Water Commissioners, City Hall, for furnishing a ¼-yard steam dipper dredge to be delivered and set ready for operation at the west end of the Peddie Street Ditch. Also for the purchase of the dredge now belonging to the city. Bidders must specify that dredge will be delivered within 30 days after award of contract is made. M. R. Sherrerd is Ch. Engr.

HOWITZER CARRIAGES.—Washington, D. C.—Bids were received as follows on April 26 at the office of the Chief of Ordinance, War Department, Washington, for furnishing (a) 48 6-in. howitzer limbers and (b) 48 6-in. howitzer caissons: Bethlehem Steel Co., South Bethlehem, Pa., (a) $1,755.56 each, (b) $1,905.93; combined, $3,491; American & British Mfg. Co., Bridgeport, Conn. (a) $2,679, (b) $3,380; A. & G. M. Anderson Mfg. Co., Boston, Mass., (a) $1,425, (b) $1,580; Dietrick & Harvey Co., Baltimore, (a) $2,410, (b) $2,833; combined, $5,020.

CANAL WORK.—Columbus, Ohio.—Bids will be received by the State Board of Public Works until noon, May 12, for the improvement of Miami and Erie Canal; rebuilding lower lock at Miamisburg; Miamisburg aqueduct; upper lock at Hamilton, repairing lower lock at West Carrollton; Dryden's lock; Snyder's lock; mud catchers between Dayton and Middletown; feed gates, Middletown dam; dam crossing the Miami River at Troy; culverts in Auglaize, Paulding and Lucas Counties; locks Nos. 32 and 33, south of Defiance; 7,000 bbls. American Portland cement. Estimated cost, $101,000. Chas. E. Perkins, Ch. Engr. Bd.

SUPPLIES.—Washington, D. C.—Bids will be received until April 27 by the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., to furnish at the navy yards and naval stations the following supplies: Puget Sound, Wash., or Brooklyn, N. Y., Sch. 1091—20 tons steel rails; 1,425 lbs. rail splices, etc. Washington, D. C., Sch. 1122—New model engine lathe; crank shaper. Brooklyn, N. Y., Sch. 1123—Universal and tool grinding machine; Sch. 1125—Upright drilling machine; lathe; horizontal boring machine; Sch. 1130—Twist drills; 80,000 lbs. ingot tin; Sch. 1133—Brass bolts and nuts; rough brass valves; electrically driven plate bending roll. Annapolis, Md., Sch. 1124—Steam driven air compressor outfit. New York, N. Y., or San Francisco, Cal., Sch. 1126—A 100,000-gal. steel tank and tower.

Bids are also asked until May 11 as follows: Mare Island, Cal., or Brooklyn, N. Y., Sch. 1135—80,300 lbs. medium steel; Sch. 1136—7,275 lbs. soft rolled sheet copper, etc. Puget Sound, Wash., or Brooklyn, N. Y., Sch. 1135—18 brass gate valves. Applications for proposals should designate the schedules desired by number.

The following are the bids opened at the office of the Bureau of Yards and Docks, Navy Dept., for four electrically driven capstans for navy yards, Mare Island, Cal., and Philadelphia, Pa. (Specification 1618): Hyde Windlass Co., Bath, Me., $10,360, and American Ship Windlass Co., Providence, R. I. (three bids), $13,200, $12,500 and $13,000.

## CONTRACT PRICES.

PAVING.—Seattle, Wash.—Bids received on April 2 by the Board of Public Works, Seattle, for paving Jackson St., etc. The following itemized bids were from: (A) P. J. McHugh, Seattle, Wash; (B) Barber Asphalt Paving Co., White Bldg., Seattle, Wash.; (C) F. McLELLAN & CO., Burke Bldg., Seattle, Wash. (awarded contract); (D) Rich-Harris Construction Co., Bailey Bldg., Seattle, Wash.:

| | (A) | (B) | (C) | (D) |
|---|---|---|---|---|
| Clearing and grubbing, lump sum | $1,000 | $5,500 | $2,[illegible] | $2,800 |
| 21,000 cu. yds. earthwork | .30 | .45 | .[illegible] | .30 |
| 46,697 sq. yds. asphalt paving | 1.65 | 1.90 | 1.[illegible] | 1.85 |
| 11,870 sq. yds. brick paving | 2.85 | 2.75 | 2.[illegible] | 2.70 |
| 1,024 sq. yds. sandstone paving | 3.75 | 3.85 | 3.[illegible] | 3.85 |
| 793 sq. yds. brick gutters | 2.85 | 2.75 | 2.[illegible] | 2.70 |
| 37,505 lin. ft. concrete curbing | .30 | .35 | .[illegible] | .35 |
| 419 lin. ft. curved granite curbing | 1.65 | 1.80 | 1.[illegible] | 2.00 |
| 2,934 lin. ft. armored concrete curbing | .75 | .70 | .[illegible] | .75 |
| 60 lin. ft. curved granite curb, reset | .20 | .50 | .[illegible] | .50 |
| 430 lin. ft. wood stop | .40 | .30 | .[illegible] | .50 |
| 600 sq. yds. concrete sdwk. repairing | 1.25 | 1.25 | 1.[illegible] | 1.10 |
| 30 M. ft. B. M. relay old lumber | 10.00 | 5.50 | 5.[illegible] | 7.00 |
| 5 M. ft. B. M. new lumber | 20.00 | 17.00 | 16.[illegible] | 20.00 |
| 74 sq. yds. alley crossings, concrete | 1.35 | 1.50 | 1.[illegible] | 1.35 |
| 24 sq. yds. alley crossings, brick | 2.85 | 2.70 | 2.[illegible] | 3.00 |
| 107 manhole and catch basin covers adjusted | 3.00 | 2.50 | 1.[illegible] | 3.00 |
| 2 catch basins, 1 inlet | 60.00 | 65.00 | 50.[illegible] | 65.00 |
| 3 catch basins, 2 inlets | 70.00 | 80.00 | 60.[illegible] | 80.00 |
| 16 catch basins moved | 25.00 | 25.00 | 25.[illegible] | 20.00 |
| 2 single inlets | 10.00 | 15.00 | 15.[illegible] | 60.00 |
| 104 inlets to be moved | 5.00 | 5.00 | 5.[illegible] | 3.00 |
| 25 track inlets | 13.00 | 12.00 | 6.[illegible] | 15.00 |
| 13 inlets adjusted | 3.00 | 1.00 | 5.[illegible] | 2.50 |
| 4,500 lin. ft. 6-in. pipe sewer side connections | .90 | 1.35 | .[illegible] | 1.10 |
| 35 monument cases | 10.00 | 7.00 | 8.[illegible] | 10.00 |
| 756 lin. ft. 8-in. c.-i. pipe "A" | 1.60 | 1.70 | 1.[illegible] | 1.60 |
| 4 hydrants | 85.00 | 80.00 | 70.[illegible] | 90.00 |
| 2 hydrants reset | 10.00 | 25.00 | 20.[illegible] | 15.00 |
| 3 2-ft. hydrant extensions | 15.00 | 4.00 | 10.[illegible] | 20.00 |
| 1 8-in. gate | 25.00 | 25.00 | 25.[illegible] | 35.00 |
| 20 brick gate chambers | 35.00 | 35.00 | 40.[illegible] | 35.00 |
| 30 lin. ft. 6-in. c.-i. pipe "A" | 1.25 | 1.25 | 1.[illegible] | 1.40 |
| 100 lin. ft. ¾-in. galv. iron pipe hyd. drain | .60 | .30 | .[illegible] | .30 |
| Totals | $153,732 | $175,404 | $153,[illegible] | $165,806 |


## Readers' Wants

**If you are in the market for material, equipment or supplies, and fail to find it in our advertising pages, send us full particulars, and we will gladly put you in touch with the right parties.**


AMUSEMENT PARK DEVICES.—Chicago, Ill.—Alfred E. Croft, 40 Dearborn St., writes that he desires to communicate with manufacturers of amusement park devices.

HYDRAULIC PLANT OR MOTOR.—New York.—A reader of Engineering News writes us for information concerning a hydraulic plant or motor invented by Prof. A. H. Perry. Address H. P. M., care of Engineering News, New York.

## EXAMINATIONS.

WATER SUPPLY INSPECTORS.—New York, N. Y.—The Municipal Civil Service Commission, 299 Broadway, gives notice that applications will be received until 4 p. m., May 10, for the position of Inspector, Bd. of Water Supply, at a salary of from $4.50 to $5 a day. The examination will be held at 10 a. m., June 22. Age limit, 25. F. A. Spencer is Secy.

## INDUSTRIAL NOTES.

THE COMMERCIAL BUREAU CO., New Bloomfield, Pa., has opened an office in the Hudson Terminal Bdlg., 50 Church St., New York.

G. K. HOOPER, engineer, announces the removal of his office during April, 1909, to the City Investing Building, 165 Broadway, New York City.

HEYDE BROS. CO., Pittsburg, Pa., have removed their New York offices from 141 Broadway, to the Fulton Bldg., Hudson Terminal, 50 Church St., New York.

THE KEYSTONE DRILLER CO., Beaver Falls, Pa., has removed its branch office, located previously at Platteville, Wis., to the Monadnock Block, Chicago, Ill.

BOLLER & HODGE, Consulting Engineers, have removed to offices on the 22d floor of the Singer tower, 149 Broadway, New York City. Their telephone number is 2640 Cortlandt.

THE DU BOIS IRON WORKS, Du Bois, Pa., announces the removal of its Pittsburg office from 1206 Park Bldg., to more commodious quarters at 1429 Park Bldg. Mr. G. E. Webb is manager of this office.

DODGE & DAY, Engrs., P[illegible]delphia, have recently been commissioned [illegible] the Emerson Steam Pump Co., Alexandr[illegible] Va., to make a preliminary report and [illegible] re plans for a new plant to be erected [illegible] outside of Alexandria.

THE NATIONAL CONS[illegible]TION CO., engineers and contractors, a[illegible]nces the removal of the Company's o[illegible] from Suite 1112 Tacoma Bldg., to Suite [illegible] Commercial National Bank Bldg., 115 A[illegible] St., Chicago. Telephone, Randolph 1[illegible]

THE CARNEGIE STEEL [illegible]has added to the 1,550-HP. in Crocke[illegible]eeler form "W" motors in its Duquesn[illegible]nt by the purchase of three more [illegible]r-Wheeler motors of the same type, esp[illegible]y designed for rolling mill work, aggre[illegible] 225 HP.

THE UNION ELECTRIC [illegible]ER CO., Union, Ia., has ordered from [illegible]inneapolis Steel & Machinery Co., a [illegible] Muenzel producer gas engine and gas [illegible]er, which they will install in their new [illegible]tric light plant. The engine will be belt[illegible] two generators.

THE DU BOIS IRON WO[illegible] have recently appointed Mr. James L. [illegible]nball New England representative, with [illegible]es at 53 State St., Boston, Mass., also [illegible] James F. Marshall Co., 608 Chestnut St., [illegible]ladelphia, General Sales Managers for [illegible]rn Pennsylvania, Delaware and the sou[illegible]rn half of New Jersey.

THE MASSACHUSETTS SA[illegible] WORKS, Chicopee, Mass., have brought [illegible]t a new portable hack saw machine wh[illegible] will cut through a 9-in. rail or I-beam [illegible] an angle up to 45°. The company sets [illegible] that its advantages over present meth[illegible] are as follows: The M. S. W. portable [illegible]achine is compact and easily operated by one man, weighing when set up ready to run about 90 lbs. One man can easily cut through a 9-in. I-beam in from 25 to 30 minutes without stopping for rest. Saws in this machine make clean, straight cuts and the danger of their breaking is reduced to a minimum.

THE HURLEY TRACKLAYING MAchine Co., Chicago, has recently closed a second contract with the Erie Railroad, whereby they are leasing one of their machines for laying the track on the Genesee River Railroad in New York. The work is expected to start from Cuba, N. Y., the latter part of April.

DODGE & DAY, Engrs., Philadelphia, have recently installed gas producers and regenerative gas furnaces of their own design in the plants of the Bradlee Chain Works and the Fayette R. Plumb companies in Philadelphia. In both of these installations the boilers as well as the furnaces are fired by gas from the producer.

THE CONTRACT for the construction of the concrete pile foundations and concrete pile bulk-heads for the J. S. Young Co. plant of the MacAndrews-Forbes Co., Boston and Elliott Sts., Baltimore, has been awarded to the Raymond Concrete Pile Co., of New York and Chicago; C. Montgomery Anderson is the Architect for the work.

THE WATERPROOFING COMPANY, 147 East 35th St., New York, is now at work on a contract for waterproofing with Hydrolithic cement the basement of the building at 142 Liberty St., New York. This work is in charge of Richard Deeves & Son as general contractors, and is under the supervision of Francis H. Kimball, Arch.

THE RAYMOND CONCRETE PILE CO., of New York and Chicago, has been awarded the contract for the concrete pile foundation for the 10-story, 54 × 100-ft., fireproof warehouse to be erected at 139-141 Franklin St., New York, for the Strohmeyer & Arpe Co., importers; Maynicke & Franke are the Archs., and Chas. H. Peckworth the contractor.

THE FIRST FOUNTAIN PEN PLANT in Canada has been placed in operation by L. E. Waterman Co., at St. Lambert, Que. The plant is entirely electrically driven, the current being generated on the premises. The generator is a Crocker-Wheeler belt type, three-phase, 60 KVA., 600-volt, 60-cycle machine, running at 1,200 r.p.m., furnished by the Canadian Crocker-Wheeler Co., Ltd., of Montreal. It is driven by a Bellis & Morcan English vertical engine. This machine was installed for immediate use, and the plant will be doubled before it is completed. The exhaust steam is used for heating the buildings.

JAMES BENNIE & SON, proprietors of Clyde Engine Works at Cardonald, near Glasgow, Great Britain, makers of heavy machine tools for ship yards, structural iron works, boiler shops, etc., have concluded a license with the Hanna Engineering Works of Chicago, Ill., for manufacturing their Hanna type pneumatic riveter in Great Britain.

THE SPENCER MFG. CO., St. Paul, Minn., informs us that it has received orders from the Canadian Pacific Ry., for its conveyor for loading baggage and baggage on the steamers "Victoria" and "Charlotte." The conveyors are portable and take the place of the ordinary gang-plank arrangement. The eastern agent is John T. Gibson, 554 Broadway St., New York.

THE FOUNDATION COMPANY, 115 Broadway, New York, has secured the contract for the foundations of the Bryant Building to be erected at the corner of Liberty and Nassau Sts., New York City. This building will be constructed by the C. L. Grey Construction Co. under the specifications and supervision of Henry Ives Cobb, Arch. Work will be commenced on this contract at once.

THE KOSMOS PORTLAND CEMENT CO., Louisville, Ky., commenced shipping cement on the 30th of March. The re-building was started October 26th and pushed steadily to completion. The plant is now composed entirely of steel and concrete buildings and positively fireproof. The buildings are all new and the machinery was all overhauled, and when in the least damaged was replaced by new.

THE FORT PITT BRIDGE WORKS, of Pittsburg, Pa., announces that its Western Agent, Mr. A. R. Young,, C. E., 818 Fisher Building, Chicago, Ill., has resigned his position with this company in order to become a member of the firm of W. R. Carter & Co. Engineers and Contractors, of Lawrence, Kan., and from April 1, 1909, Mr. H. C. Breidert, C. E., of the Pittsburg office has assumed charge as Western Agent, with offices as above indicated in the Fisher Building.

THE ROBINS NEW CONVEYOR CO. has leased the entire building at 72 Front St., New York City, and on April 1 removed its offices from 38 Wall St. to this new location. The machinery and other effects of the Duane St. factory are now being removed into the new quarters as rapidly as possible. The constant and material increase in the company's business is responsible for the change of location and the combining of offices and factory. Greatly increased facilities are provided by the new location, particularly for the manufacture of Robins Laminated Leather Belting and Robins Genuine Balata Belting.

THE WOOD DRILL WORKS, of Paterson, N. J., have recently shipped complete drilling outfits to the following schools for use in demonstrative work and instruction and are issuing an enlarged sectional cut of the machine for use in class work: University of Missouri, University of Colorado, University of Michigan, State University of Kentucky, University of Washington, and University of Michigan. The company is aiming to give these schools all the information possible in the way of drilling costs. They will soon issue a booklet containing views and information on the Panama Canal from the visit made by their Mr. Warren Wood, who arrived in the United States on March 10.

ONE OF THE LARGEST CONTRACTS for cement ever placed in the Dominion of Canada, has just been placed by the Frank B. Gilbreth organization with the Vulcan Portland Cement Co., whose works are at Longue Pointe, Que., through their agents the William G. Hartranft Cement Co., Ltd., of Montreal, Canada. The order covers the entire cement requirements for the immense hydro-electric development on the St. John River at Grand Falls, N. B., and will amount to nearly 100,000 barrels of cement, which will be tested at the company's storage bins, where it will be reserved under seal and shipped in carload lots to the job as required, thus assuring the contractor that the cement will be up to the standard requirements when received.

A NEW MODIFICATION of the ordinary slide-rule is being introduced by Keuffel & Esser Co., of New York City. It is specially adapted for calculations involving powers and roots higher than the square, and for calculations with many factors. The four ordinary scales are retained, but another scale is added to the slide, lying between scales B and C and formed by an inverted C scale. This scale is very useful for division and other operations in expressions having many factors. On the edge of the rule is placed a cube scale, in place of the customary millimeter scale. This simplifies the solution of cubes and cube roots, and makes possible such operations as the extraction of fifth root, or raising to third, fifth, etc., powers. A circular explaining the use of this new rule, with 70 examples, is furnished with the rule. The rule is called the Polyphase Slide Rule.

THE SANDUSKY PORTLAND CEMENT CO., of Sandusky, O., is supplying its White Portland Cement for use on the following important contracts: Point Bldg., Cleveland, O.; Western Newspaper Union Bldg., Chicago; Clean Dairy Co. Bldg., St. Louis, Mo., for cement floor work; Campbell Bldg., Oklahoma City, for facing the entire front; Battle Creek Sanitarium, for finishing bath rooms; dormitory, Pomona College, Claremont, Cal., entire exterior finish; Northwestern University Bldg., Evanston, interior stairs and baluster work. The company is also furnishing Medusa Waterproof compound on important contracts, the following representing a few of them: Swimming pool at Wilmerding, Pa.; Blackstone Hotel, Chicago; City Hospital, St. Louis, Mo., in plaster and wainscoting; St. Anthony Hotel, San Antonio, Texas; D., L. & W. collieries, concrete dam, Scranton, Pa.; East Jersey Water Co., concrete sewage tank, Summit, N. J.

## TRADE PUBLICATIONS.

CONCRETE CHIMNEYS.—The Weber Co., Marquette Bldg., Chicago, Ill. Paper; 6 × 9 ins.; pp. 24; illustrated.

Contains an argument traversing an expert report on concrete chimneys published some time ago.

POWER DRIVEN PUMPS.—Du Bois Iron Works, Du Bois, Pa. Bulletin "EP"—No. 3.

Motor, gasoline engine and belt driven pumps are illustrated and briefly described in this bulletin. Du Bois pumps are made in capacities of 25 to 1,000 gals. per minute.

AIR COMPRESSORS.—American Compressor & Pump Co., 26 Cortlandt St., New York. Bulletin "A." Paper; 6 × 9 ins.; pp. 16; illustrated.

This bulletin contains illustrations of a line of steam and belt driven air compressors marketed by this concern, together with tabulated data and dimensions.

NUT LOCK.—The Interlocking Nut & Bolt Co., Pittsburg, Pa. Paper; 3½ × 5¼ ins.; pp. 6; illustrated.

The bolt is slotted, and by means of a special chisel the threads of the bolt are expanded tightly into the nut, while a portion of the nut is expanded into the slot of the bolt. It is intended for railway track, locomotives, machinery.

GRAPHITE PAINT.—Detroit Graphite Co., Detroit, Mich. Paper; 3½ × 6¼ ins.; pp. 14; illustrated.

A history of the above named company's plant and an exposition of its facilities for manufacturing good paint is set forth in this booklet. There are illustrations showing the plant and various well known steel structures treated with "Superior" paint.

EXPLOSION ENGINES.—August Mietz, 128 Mott St., New York City. Catalog A 47. Paper; 9 × 6 ins.; pp. 44; illustrated.

A line of internal combustion engines is herein described with directions for setting up and operating. These engines are designed for gas, oil or alcohol fuel and include types for stationary and marine uses, for air compressors, generator drives, pumps and hoists.

HORIZONTAL GAS ENGINES.—Foos Gas Engine Co., Springfield, Ohio. Paper; 9 × 8 ins.; pp. 56; illustrated.

The Foos design of gas and gasoline engines is shown in general and in the details of igniters, cams, valves, governors, pumps, etc. Among the complete engine outfits shown are those for portable mechanical and electrical power, vacuum cleaners, wood saws, etc.

RIVETERS.—Chester B. Albree Iron Works Co., Allegheny, Pa. Paper; 9 × 6 ins.; pp. 87; illustrated.

The well-known Albree air riveters, which realize increasing pressure by means of a toggle movement, are fully represented in Catalog No. 10. Two or three new things are shown, one of them a method of mounting with gantry frame that is claimed to be much cheaper and more convenient than the ordinary mounting.

ELECTRIC CLUTCH.—Wheeling Mold & Foundry Co., Wheeling, W. Va. Bulletin 102. Paper; 8 × 10½ ins.; pp. 8; illustrated.

This company has designed a magnetic reversing-drive clutch for planers, with which it is claimed that the difficulties of other reversing drives have been eliminated and the electric motor may be directly attached to the planers.

DYNAMOS.—Crocker-Wheeler Co., Ampere, N. J. Bulletin 110. Paper; 7 × 10 ins.; pp. 16.

A list of engine-type direct current generators installed for the Crocker-Wheeler Co. is given in this bulletin. Fifteen pages of names and addresses are required to complete the list, which includes factories, railway and machine shop power plants and isolated stations.

CONVEYOR CHAIN.—Wilmot Engineering Co., Hazleton, Pa. Bulletin No. 1. Paper; 6 × 9 ins.; pp. 8; illustrated.

The "Keystone" rivetless conveyor chain is described in this leaflet. This chain contains three different parts: center, or keystone links, side links (interchangeable), and connecting pins. These parts are all drop-forged. The chain may be assembled or taken apart without hooks.

STEAM HAMMERS.—Niles-Bement-Pond Co., New York, N. Y. Paper; 9 × 12 ins.; pp. 52; illustrated.

The Bement hammers are of single and double frame types, taking steam both above and below the piston. The pressure recommended is from 75 to 100 lbs. per sq. in. Numerous designs are illustrated, in which the weight of the hammer without allowance for top steam pressure is from 250 lbs. to 15 tons, the steam cylinders being 5 × 16 ins. and 40 × 108 ins., respectively.

GAS PRODUCERS AND GAS FIRING.—Ernest Schmatolla, Metallurgical and Chemical Engineer, 317 High Holborn, London, W. C., England. Paper; 5½ × 8½ ins.; pp. 19; illustrated.

This is a reprint of Mr. Schmatolla's article in the British "Mining Journal," Feb. 6, 1909. It sets forth the advantages of gas firing over the direct use of coal. The illustrations are sectional views of furnaces and producers.

GRAPHITE PAINT.—Detroit Graphite Co. Detroit, Mich. Paper; 3½ × 6¼ ins.; illustrated.

The painting of the Poughkeepsie Bridge of the N. Y., N. H. & H. R. R. is briefly described in this pamphlet. It is stated that the paint required for the entire structure as it stands today was estimated at about 300 bbls., but that less than one-half of that quantity was actually required. There are approximately 33,000 tons of steel in the bridge.

SAFETY VALVES.—The Consolidated Safety Valve Co., 85 Liberty St., New York City. Paper; 6 × 9 ins.; pp. 32; illustrated.

A paper on "Safety Valve Capacity," by Philip G. Darling, is published in this pamphlet and is followed by tables giving the relieving capacities of various types and sizes of safety valves made by this company and other information of value in assisting the selection of a valve for a given condition of service. Mr. Darling's paper on "Safety Valve Capacity" was printed in Eng. News, March 11, 1909.

SAFETY SWITCH.—The Jenney Safety Switch Co., Niagara Falls, N. Y. Paper; 11 × 14 ins.; pp. 4; illustrated.

This device is intended to prevent a second train from following another into a siding. A guard rail released by the wheels of the first train is held against the main rail while the switch is left open. The wheels of the next train would force this rail back and in this way operate mechanism for closing the switch. The illustrations show the device in experimental use on the Boston & Albany Ry.

HYDRAULIC CLASSIFIERS.—Allis-Chalmers Co., Milwaukee, Wis. Paper; 8 × 10½ ins.; pp. 12; illustrated.

These machines are for grading or sizing the feed to ore concentrators. The material is fed to a chamber having an upward current of water, the heavier particles settling to the bottom while the higher particles pass off with the overflow to another chamber. The chambers are of different forms and sizes, and the force of the current of water is varied according to the degree of sizing. Several types of classifiers are described.

INTERURBAN RAILWAY PLANT.—Allis-Chalmers Co., Milwaukee, Wis. Paper; 8 × 10½ ins.; pp. 16; illustrated.

This pamphlet contains descriptions of the Winona Interurban Ry. and the Indianapolis, Crawfordsville & Western Ry., in Indiana. Special attention is given to the power plants and electrical equipment. The first is a short line, with several extensions perfected. The second is a 45-mile line built for high-speed service. Particulars are given also of special electric motors used on these and other roads.

FANS AND BLOWERS.—American Blower Co., Detroit, Mich. Catalog No. 251. Paper; 7 × 8¾ ins.; pp. 24; illustrated.

"Sirocco" fans and blowers are described in this catalog, which contains also a comparison of the "Sirocco" turbine fan wheel with the older types of steel plate fans. Typical installations for the ventilation of buildings, ships and mines and for furnishing mechanical draft are illustrated and briefly described. On p. 15 is given a capacity table for these fans as now manufactured. The last seven pages are devoted to various other types of "A B C" apparatus.

CONCRETE BUILDINGS.—"Cement Stucco," Bulletin No. 22, Association of American Portland Cement Manufacturers, Land Title Bldg., Philadelphia, Pa. 6 × 9 ins.; pp. 24; illustrated.

This is the February, 1909, issue of the Concrete Review, Vol. 3, No. 10. It describes with a considerable number of illustrations and tables of data, methods of applying cement stucco to old or new buildings, either of frame or brick. A trip through any of our suburban communities will show the admirable effects realised with this style of finish on detached or semi-detached residences.

FEED-WATER REGULATOR.—The Williams Gauge Co., Pittsburg, Pa. Paper; 6 × 9 ins.; pp. 16; illustrated.

The Williams safety feed-water regulator and the Williams auxiliary feed-water regulator are described in this booklet. The auxiliary regulator is intended for boiler plants which are already equipped with safety water columns which it is not desired to discard. The last few pages are devoted to steam traps and other specialties. Illustrations show sectional views of the Williams appliances and general views of boiler plants that use them.

METAL TESTING MACHINES.—Queen & Co., Inc. Eighth and Arch Sts., Philadelphia, Pa. Paper; 6 × 9 ins.; pp. 8; illustrated.

The causes leading up to the production of the Landgraf-Turner alternating impact machine are set forth in the first pages of this booklet. The desirability of testing under alternating stresses is explained and corroborated by extracts from a paper by Prof. J. O. Arnold. The machine itself is thoroughly described and shown by illustrations. It is said to weigh only 90 lbs. and is listed, arranged for belt drive, at $150. This machine "tests all materials beyond their limits of elasticity."

ROAD ROLLERS AND CONTRACTORS' ENGINES.—The Hubert Mfg. Co., Marion, Ohio. Paper; 9¼ × 8¼ ins.; pp. 40; illustrated.

These engines are for use in street and road building and for heavy hauling work in grading, paving, etc. The boiler has a furnace flue and return tubes, and has the cylinder and gears mounted upon it. Both single and double cylinder engines are built. The front wheels may be removed and a roller substituted, the roller being made with a tongue so that when detached it can be operated by a team of horses. The main shaft carries a belt pulley, so that the machine can drive a concrete mixer, crusher, pump, etc. Thus the combination outfit provides a traction engine, a steam roller, a horse roller and a stationary engine.

PILE DRIVERS.—Vulcan Iron Works, 28 North Irving Ave., Chicago, Ill. Catalog No. 31. Paper; 5 × 7 ins.; pp. 60; illustrated.

Complete pile drivers and hoisting engines are made by this company. The catalog shows a great variety of drop hammers and explains the operation and distinctive features of each type, some of which may be arranged for either horse or steam power. The Warrington steam pile hammer is described and its construction is shown by a sectional view.

The latter half of the catalog is devoted to pile driver accessories, including a pile saw arbor for cutting off piles under water. The Engineering News formula for safe bearing loads on piles is reproduced and is accompanied by a table of safe loads for different sets and weights of hammer.

VALVES.—Nelson Valve Co., Wyndmoor, Philadelphia, Pa. 1909 Catalog. Cloth; 6 × 9 ins.; pp. 220; illustrated.

Bronze valves, iron body and steel valves and valve accessories and fittings are shown respectively in the three sections of the catalog. Each type of valve is introduced by a sectional (halftone) view and a concise but clear description. This is followed in every case by exterior views of the several variations of the type described, with tables of dimensions and prices and explanatory notes, pointing out the distinguishing features of each style of valve. The valves shown include bronze globe, check and gate valves; iron body, gate and check valves for large pipe sizes; steel globe and gate valves for large sizes and high pressures, and hydraulically and electrically operated gate valves. The illustrations in this catalog are excellent, as is also the arrangement and quality of the descriptive matter.

SPECIAL HAULING MACHINERY.—Buffalo Pitts Co., Buffalo, N. Y. Stiff Paper; 12 × 9 ins.; pp. 36; illustrated.

This catalog should interest any one interested in economic transportation of freight over ordinary roads. The company has developed a new type of freight wagon, with a special traction and guiding gear, which causes all the wheels of a train to follow in the same line and thus enables a long string of wagons or cars to be hauled around sharp curves without fouling the inner side of the road. Notable improvements have also been introduced in the construction of the traction engine. We may mention particularly the tapered lugs on the treads of the driving wheels, which concentrate the load at the center of the tread and avoid cutting into the sides of the road by the edge of the tread where the roadbed is crowned. The cars have a capacity of from 8 to 20 tons, and the engine is claimed to be able to haul a train-load of 40 to 60 tons on good dirt roads with moderate grades. The estimated expense of operation is $10 per day, and the cost of hauling works out as low as a cent per ton-mile on fairly good roads.

WATER SOFTENERS.—Gem City Boiler Co., Dayton, Ohio. Paper; 6 × 9 ins.; pp. 28; illustrated.

The Russell water softener is described in this booklet. At the end of a list of 16 "features that a modern water softener should possess to be the acme of perfection," it is stated, incidentally, that all these features "are embodied in the Russell softener." The following pages describe the operation of this softener, the description being supplemented by copious sectional views, and point out its several desirable features, most of which are said to be exclusive.

ICE BREAKERS.—Jos. S. Lovering Wharton, 3166 N. 17th St., Philadelphia, Pa. Paper; 3¼ × 6¼ ins.; pp. 28; illustrated.

An improved model of the Creasey ice breaker is described as having the following innovations: the drum can be slid out of the frame horizontally through a gap, making lifting or dismantling unnecessary; the delivery plate can be fixed in two positions to deliver the ice front or rear as desired; the front plate has three adjustments for giving different sizes to the broken ice. Besides these improvements, the frame of the machine has been re-designed along more graceful and stronger lines. Interesting tables of information on freezing ice cream, cold storage temperatures, specific heats, etc., are given in this booklet.

WATER POWER PLANT.—Allis-Chalmers Co., Milwaukee, Wis. Paper; 8 × 10½ ins.; pp. 16; illustrated.

The hydro-electric development of the Great Northern Power Co., near Duluth, Minn., is described in this pamphlet. It comprises a dam, canal, pipe lines, and a power-house which eventually will have eight generating units. Each unit comprises a vertical-shaft turbine of 13,500 HP. and a 7,500-KW., three- phase, 25-cycle generator mounted on the shaft.

"MACHINE TOOL TRADE in Germany, France, Switzerland, Italy and United Kingdom" is the title of Capt. Godfrey L. Carden's report on machine tools in Europe. This report, which is written in a most interesting and readable style, outlines succinctly the economic and industrial conditions in the leading machine shops of the countries visited by Capt. Carden. Beside interesting details concerning wages, working hours, etc., there is information as to the machine tools of American manufacture found in European shops, and notable machine tool features peculiar to the foreign shops are described and illustrated. Copies of this report (6 × 9 ins., pp. 246), may be obtained by addressing the Bureau of Manufacturers, Department of Commerce and Labor, Washington, D. C.

REFRACTORIES.—Harbison-Walker Refractories Co., Pittsburg, Pa. Leather; 4 × 6½ ins.; pp. 158; illustrated.

This catalog is an attractive book of convenient pocket size. It contains information concerning the properties and suitability for various purposes of fire clay, silica, magnesia and chrome brick and presents illustrations showing the shapes in which they are manufactured. Each illustration is accompanied by a note giving the name, dimensions and number of brick to the circle. In addition to the standard shapes there are shown several for special purposes such as coke ovens, rotary kilns, converters, etc.

There follow excellent sectional cuts showing the arrangement of brickwork in blast furnaces, hot-blast stoves, coke ovens, steel furnaces, cupolas, puddling furnaces, copper reverberatories and converters and boiler settings. In each case, not one type alone is shown but a well chosen assortment covering the distinguishing features of the forms generally used. The boiler settings, shown, for example, include a typical return tubular boiler and seven different types of water tube boilers. All illustrations are clean cut and accurate in detail. They are said to have been supplied by the owners or patentees of the furnaces illustrated and to be, therefore, thoroughly reliable.

The balance of the book is made up of tables and miscellaneous data. Brick tables show how a circle or arch of any diameter from 6 ins. to 35 ft., may be laid up with a combination of the standard fire brick shapes previously designated. Miscellaneous data include temperatures of iron, steel and other metals under various conditions occurring in industrial processes; fusing points of seger cones; conversion table of Centigrade and Fahrenheit temperatures from 1815° C. to —18° C.; circumferences and areas of circles and an unusually comprehensive table of weights of various materials. The last three pages are devoted to an effective index.

WINDMILL PUMPS.—Flint & Walling Mfg. Co., Kendallville, Ind. Paper; 3½ × 6¼ ins.; pp. 4; illustrated.

This relates to pumping plants for farm and country use, with or without a tank in the tower which carries the windmill.

ELECTRIC HARDENING SURFACES.—General Electric Co., Schenectady, N. Y. Bulletin 4655. Paper; 8 × 10½ ins.; pp. 4; illustrated.

In these few pages is a more or less detailed description of an electric furnace for use in timbering and annealing processes.

GRAPHITE PAINT.—Detroit Graphite Co., Detroit, Mich. Paper; 3½ × 6¼ ins.; pp. 16; illustrated.

The manufacture, advantages and uses of this paint are set forth briefly. There are illustrations of the company's plant and of structures on which its paint has been used.

VALVES.—Coffin Valve Co., Boston, Mass. Paper; 8 × 10½ ins.; illustrated.

In a cover bearing the title "Sluice and Gate Valves" are some 50 sheets showing this line of valves as designed by this particular company. The valves are made in all sizes, and particular attention seems to be given to the design of very large units.

DIRECT CURRENT WATTMETER.—Duncan Electric Mfg. Co., Lafayette, Ind. Bulletin 8. Paper; 6 × 9 ins.; pp. 14; illustrated.

There is a general description of the construction, testing and installing of the direct current integrating wattmeters of the Thomson type made by this company in this pamphlet.

STEAM TURBINES.—General Electric Co., Schenectady, N. Y. Bulletin 4653. Paper; 8 × 10½ ins.; pp. 54; illustrated.

The Curtis steam turbine-generators are described in this publication, and the details of the mechanical construction are given with the help of numerous cuts. The book shows all sizes from the small horizontal 35-KW. type upward to 10,000 KW.

ELECTRIC LAMPS.—National Electric Lamp Association, Engineering Dept. Bulletin 6D. Paper; 6 × 9 ins.; pp. 28; illustrated.

This pamphlet is published by the engineering department of an association of 18 of the independent incandescent lamp manufacturers, and partakes of the nature of a treatise on the use of lamps with tungsten filaments.

STORAGE BATTERIES.—The Gould Storage Battery Co., 341 Fifth Ave., New York City. Paper; 6 × 9 ins.; pp. 36; illustrated.

The storage battery as applied to isolated lighting plants is described in this pamphlet. The various schemes of connecting up the batteries for charging and discharging are described with the assistance of diagrams. There are tables of dimensions, capacities and cost.

OXY-ACETYLENE BLOWPIPES.—The Linde Air Products Co., Buffalo, N. Y. Circular "C." Paper; 6 × 9 ins.; pp. 33; illustrated.

The Fouché blowpipe, injector type, is illustrated and briefly described in this booklet, which presents also a price list of the ten sizes of blowpipe made by the Linde Co. The various accessories used in antogenous welding with this blowpipe are described and instructions are given for preparing metal to be welded and for operating the blowpipe. Half a dozen pages are devoted to photographs of castings repaired by antogenous welding with the blowpipe.

HYDRAULIC JACKS.—The Duff Mfg. Co., 50 Church St., New York City. Paper; 6 × 9 ins.; pp. 15; illustrated.

The Duff-Bethlehem hydraulic jacks as described in this catalog has the base forged in one piece with the cylinder, avoiding the necessity of packing at the bottom of the cylinder. Another advantage is the forging in one piece of the ram, valve chamber and pump socket. The only packing required is that for the ram and for the pump plunger. Both cylinder and ram are open-hearth, fluid compressed, forged steel and it is claimed that these jacks weigh from 30% to 60% less than any other jacks of equal stroke and capacity.

This catalog describes also a "telescope" hydraulic jack which is fitted with a double-acting pump, giving a working stroke on both the upward and downward motion of the lever. The ram is in two sections telescoping one into the other, so that a 12-in. run-out is obtained with a closed height of only 20 ins. The special feature is the automatic adjustment of the speed of the ram to the load being raised. For loads up to 25% of the rated capacity, the speed is five times as great as for heavier loads. Prices are listed for telescope jacks of from 30 to 250 tons capacity and for plain jacks of 10 to 60 tons capacity.

**For other Proposal Advertisements see pages 51, 52, 54, 55, of Advertisements and Construction News page 144.**

## CATSKILL AQUEDUCT.

New York, N. Y.

Sealed bids or proposals will be received by the Board of Water Supply, in the office of the Board, 299 Broadway, New York, Room 910, ninth floor, until 3 p. m., on May 17, 1909, for Contract 39, for furnishing and installing two 12,500,000-gallon steam turbo-turbine pumps, two 225 horse-power water-tube boilers, and all accessories, at Jerome Avenue pumping-station, Borough of The Bronx, New York City.

An approximate statement of the quantities of the various classes of work and further information are given in the Information for Bidders, forming part of the contract. At the above place and time bids will be publicly opened and read. The award of the contract, if awarded, will be made by the Board of Water Supply as soon thereafter as practicable. The Board reserves the right to reject any and all bids.

A bond in the sum of twenty thousand dollars ($20,000) will be required for the faithful performance of the contract.

No bid will be received and deposited unless accompanied by a certified check upon a National or State bank, drawn to the order of the Comptroller of the City of New York to the amount of nine hundred dollars ($900).

Time allowed for the completion of the work is nine months from the service of notice by the Board to begin work.

Pamphlets containing information for bidders, forms of proposal and contract, specifications and contract drawings, can be obtained at Room 1515, at the above address, upon application in person or by mail, by depositing the sum of five dollars ($5) in currency, or check drawn to the order of the Board of Water Supply for each pamphlet. This deposit will be refunded upon the return of the pamphlet in acceptable condition within thirty days from the date on which bids are to be opened.

JOHN A. BENSEL,
President,
CHARLES N. CHADWICK,
CHARLES A. SHAW,
Commissioners of the Board of Water Supply.
J. WALDO SMITH,
Chief Engineer.
THOMAS HASSETT,
Secretary.

NOTE: See general instructions to bidders on last page, last column of the City Record, so far as applicable hereto and not otherwise provided for.

## SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.
Incorporated.

Sealed proposals for the construction of a sewer known as Section "A" of the Northeastern Trunk Sewer and Section "A" of the Beargrass Drain Improvement, Contract No. 36 of the Comprehensive System of Sewerage for the City of Louisville, Ky., will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, May 21st, 1909.

The work will consist mainly of building a double concrete sewer about 5,640 feet long, sizes approximately 48 inches and 60 inches in diameter, and including about 7,000 cu. yds. of concrete and 760,000 lbs. of steel. About 4,500 feet of this sewer will be on a pile foundation.

Plans and specifications may be seen at the office of the Commissioners and at the office of Harrison P. Eddy, Consulting Engineer, 14 Beacon St., Boston, Mass.

Sealed bids should be endorsed "Proposal for Section 'A' of the Northeastern Trunk Sewer and Section 'A' of the Beargrass Drain Improvement," and addressed to the Commissioners of Sewerage, Equitable Building, Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent. (7%) of the total amount of the bid, or a "Bidder's Bond" as described in the form of proposal.

W. C. NONES, Chairman.
CHAS. P. WEAVER, Secy. & Treas.
J. B. F. BREED, Chief Engineer.

## SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.
Incorporated.

Sealed proposals for the construction of the Sixteenth Street Sewer, Contract No. 37, of the Comprehensive System of Sewerage for the City of Louisville, Ky., will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, May 7, 1909.

The work will consist of building about 1,250 feet of concrete sewer, 27 ins. to 39 ins. in diameter, in trench 6 to 15 feet deep, and including 260 cu. yds. of concrete.

Plans and specifications may be seen at the office of the Commissioners.

Sealed bids should be endorsed "Proposal for Sixteenth Street Sewer" and addressed to the Commissioners of Sewerage, Equitable Building, Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent. (7%) of the total amount of the bid, or a "Bidder's Bond," as described in the form of proposal.

W. C. NONES, Chairman.
CHAS. P. WEAVER, Secy. & Treas.
J. B. F. BREED, Chief Engineer.

## PAVING.

Lawrence, Mass., April 26, 1909.

Sealed proposals will be received at the office of the City Clerk of the City of Lawrence, Mass., until 3.00 o'clock p. m., of Wednesday, May 5th, 1909, for 29,000 square yards, more or less, of street paving with granite blocks on concrete base.

Plans and specifications may be seen at the office of the City Engineer, City Hall.

A. D. MARBLE,
City Engineer.
C. J. CORCORAN,
City Clerk.

## CONCRETE BRIDGE.

Canton, Ohio.

On May 20th, 1909, at 10 a. m., the Stark County Commissioners will receive bids on a Concrete Bridge, to be built at Massillon, Ohio, of two spans of 60 ft. length by 47 ft. width. Plans and specifications on file at the County Auditor's Office. Certified check calling for $1,000.00 to accompany bid.

M. W. OBERLIN,
Auditor Stark County, Ohio.

FORT MONROE, VA.—April 26, 1909.—Sealed proposals, in triplicate, will be received until 10.00 a. m., May 27, 1909, for wire door and window screens for fifteen new buildings at Fort Monroe, Va. Bidders must state name of manufacturers supplying them with material and submit corner sample of screen with bid. Information on application. Bids should be plainly marked as such on envelope or outside wrapper. The United States reserves the right to accept or reject any or all bids or any part thereof. Address ERNEST R. TILTON, Captain & Q. M., U. S. A., Constg. Q. M.

U. S. ENGINEER OFFICE, Room 309, Custom House, Baltimore, Md., April 27, 1909.—Sealed proposals for dredging in Patapsco River, Md., will be received at this office until one o'clock p. m., June 1, 1909, and then publicly opened. Information furnished on application. W. E. CRAIGHILL, Maj. Engrs.

## Situations Open

WANTED—By Eastern firm, one or two experienced checkers or draftsmen on structural steel work as applied to bridges and buildings. State age, experience and salary expected. Address "M. B. 17," Engineering News, New York. 17-1t

CONTRACTING MANAGER wanted for structural steel work in New York City. Address "R. B. 17," Engineering News, New York. 17-2t

## Miscellaneous Wants

WILL RECEIVE PROPOSAL from contractor able to finance the completion of several short connecting lines in Western Pennsylvania, already graded. We will loan suitable underwriting, and endorsement, to assist the financing. Plan contemplates the completion of several sections of 25 miles, and a total of 250 miles of road. Proposition is ready for immediate action, and will not require much capital. Will only consider a general proposal as outlined. Address "P. B. 17," Engineering News, New York. 17-1t